EPA

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ENVIRONMENTAL TECHNICAL SERVICES

AN ENVIRONMENTAL CONSULTING FIRM

(800) 200-4ETS

2009 - 2010 ANNUAL REPORT DOCUMENTING THE IMPLEMENTATION OF THE OPERATIONS AND MAINTENANCE PLAN

FORMER HECKATHORN NPL SITE

Located At The

LEVIN-RICHMOND TERMINAL CORPORATION
402 WRIGHT AVENUE
RICHMOND, CALIFORNIA

August 13, 2010

LRT OMP RPT 0910

Please call: (510) 385-4308

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LEVIN RICHMOND TERMINAL CORPORATION

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REFERENCE: Levin Richmond Terminal Corporation
402 Wright Avenue
Richmond, CA 94804
Facility WDID No: 2 071002394
SFRWQCB Case Manager: Mr. Rico Duazo

August 13, 2010

I, Gary Levin, certify that Environmental Technical Services (ETS) is an authorized representative of the Levin Richmond Terminal Corporation (LRTC), and performs oversight of the Stormwater Program including reporting.

I certify under penalty of law that this document, "Implementation of the Operations and Maintenance Plan, 2009-2010" and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

Gary M. Levin 8/16/2010

Gary M. Levin, CEO
Levin Richmond Terminal Corp.
Attorney at Law

Date:

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Richmond, CA 94804
Attn: Gary M. Levin

REFERENCE: Levin Richmond Terminal Corporation
402 Wright Avenue
Richmond, CA 94804
Facility WDID No: 2 071002394
SFRWQCB Case Manager: Mr. Rico Duazo

I, Helen Mawhinney, certify under penalty of law that I have prepared the Levin Richmond Terminal Annual Report, "Implementation of the Operations and Maintenance Plan, 2009 – 2010" and have completed or reviewed all attachments and that they are true and accurate.

The information submitted is to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

Should you have any questions please contact me at (510) 385-4308.

Helen Mawhinney Date: Aug 13, 2010
Environmental Technical Services
Senior Environmental Specialist

ENVIRONMENTAL TECHNICAL SERVICES

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Date:

Helen Mawhinney
Environmental Technical Services

Date:

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TABLE OF CONTENTS

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

This document is prepared for submittal to the United States Environmental Protection Agency (U.S. EPA), Hazardous Waste Management Division. Levin-Richmond Terminal Corporation (LRTC), in compliance with the State of California General Stormwater Permit for Discharges of Storm Water Associated with Industrial Activities (General Permit), has performed activities that are included in its Stormwater Monitoring Plan (SWMP). The SWMP also provides the basis for the evaluation of compliance with the General Permit and Stormwater Pollution Prevention Plan (SWPPP). The combination of the SWMP and the SWPPP comprise the stormwater monitoring and pollution prevention plans for the entire 40-acre site and the facilities owned and operated by LRTC.

As required by the U.S. EPA Consent Decree, dated April 22, 1996 and the completed Upland Cap Installation, Former United Heckathorn Facility, Richmond, California, the Operations and Maintenance Plan (O & M Plan) describes the procedures for the long-term management of the upland capping system at the 4.5-acre Heckathorn NPL Site. The results of inspections, monitoring, and maintenance of the cap and drainage system are documented within this Annual Report. The upland remedy implemented by LRTC and Levin Enterprises Inc. was approved on September 30, 1999. There were no activities to report for the period ending June 2001 and LRTC began annual reporting for its fiscal year commencing July 1, 2001 through June 30, 2002. Submittal of Annual Reports is made for the reporting periods ending June 30 of each year. All referenced reports and documents are available at LRTC and are available to the U.S. EPA and its contractors upon request.

This document presents the June 2010 summary of recent inspections and maintenance by LRTC of the cap and associated stormwater interceptors.

1.1 Background

Environmental Technical Services (ETS) prepared and caused to be filed, on behalf of LRTC, the 2009-2010 Annual Report for Stormwater Discharges Associated with Industrial Activities, for the period ending June 2010. During the 2009 – 2010 reporting period no changes have been made to the Heckathorn NPL Site, including material processes, capping, and site construction. A backflow valve was removed from stormwater interceptor SW-7 and replaced with a shut off valve to prevent infiltration by salt water, and stormwater discharge into the Lauritzen Channel. The shut-off valve also allows the containment of accidental spills.

A portion of the railroad easement near stormwater system SW-4 was paved to eliminate the erosion of exposed soil onto adjacent paved surfaces and decrease migration into surface waters.

Site observations, monitoring, and "Good Housekeeping Practices" are performed on a daily basis.

1.2 Current Site Use

The Levin-Richmond Terminal Corporation operates a dry-bulk marine terminal encompassing approximately 40 acres. LRTC's activities include the handling and storage of dry bulk materials, including: steel scrap, metallurgical coke, and petroleum coke. The bulk cargo is either directly loaded into vessels; or stockpiled onsite and loaded into vessels; or unloaded

from vessels to rail cars and trucks. The capped section of the former Heckathorn Site is used for stockpiling cargo and railroad operations.

2.0 CAP AND STORMWATER INTERCEPTORS

2.1 Description of Capping System

Concrete Cap

The concrete cap is located in the upland area of the former United Heckathorn Facility. The concrete cap consists of a minimum of six inches of concrete aggregates with reinforcing steel wire. The reinforcing steel consists of a double layer of 6 by 6 W4.5 X W4.5 steel-welded wire fabric (WWF). In some areas the cap overlies asphalt. In other areas where asphalt does not exist, the concrete cap consist of a double layer of 4 X 4 W4.5 X W4.5 WWF overlaying a compacted base. In these areas the sub-grade was prepared and compacted according to the specification approved by the U.S. EPA.

Geotextile Fabric and Gravel Cover

Some areas of the upland cap adjacent to railroad tracks and switches, where the storage and handling of bulk materials does not occur, were covered with a geotextile fabric and gravel. These areas consist of soils potentially containing pesticides. The geotextile membrane and six-inches of clean imported gravel cover these soils.

Stormwater Collection within Interceptors SW-3 through SW-7

The cap contains a stormwater collection system with five large interceptors (retention basins) engineered and constructed according to the specification approved by the U.S. EPA. The interceptors are identified as SW-3 through SW-7.

2.2 Inspection of Cap

The concrete cap was inspected by Helen Mawhinney for Environmental Technical Services, on June 29, 2010, and found to be intact and in good condition. Also, the cap was inspected quarterly by Environmental Technical Services (ETS) while performing stormwater and "Good Housekeeping" observations. The cap was found to be uncompromised with only occasional surface "feather" cracks typical of those which develop subsequent to the curing of freshly poured concrete. The cracks are insignificant and not indicative of stress fractures. These surface cracks are too small to repair. Refer to Attachment B for the Environmental Technical Services, Report of Cap Inspection, June 29, 2010.

2.3 Inspection of Drop Inlets and Interceptors

Visual observations of stormwater runoff and stormwater systems are performed on an as-needed basis during shipping activities, periods of significant rainfall, and during dry and wet seasons. Work areas and surface conditions are inspected on a daily basis and the entire site is cleaned using LRTC's power vacuum power sweepers as part of LRTC's routine housekeeping. Site surfaces are kept clean to ensure that sediment and contaminants do not enter nearby surface waters.

LRTC's staff and Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform random site inspections and to advise LRTC as to effective pollution prevention improvements

LRTC's Stormwater Pollution Prevention Plan includes the inspection and documentation of drop inlet and interceptor conditions each quarter, each dry season, and annually. Monthly inspections are required during the wet season. LRTC and ETS have elected to document all inspection results on a monthly basis. The results are included in the Annual Report for Stormwater Discharges Associated with Industrial Activities

3.0 LIMITED STORMWATER DISCHARGE FROM INTERCEPTORS SW-3 THROUGH SW-7

Stormwater systems SW-3 through SW-7 were constructed with sufficient capacity to hold all stormwater runoff generated during most rainfall events. However, extraordinary rainfall occurred on January 27, 2010 causing interceptors SW-3 through SW-6 to outflow into the Lauritzen Channel. Annual stormwater samples were collected from these systems during this rain event. There was no measurable discharge during all other rain events.

Stormwater systems SW-3 through SW-7 were sampled, drained, emptied of all sediment, and pressure-washed to attempt to prevent outflow into the Lauritzen Channel. Refer to Appendix C, Cleaning of Stormwater Systems. LRTC's personnel were able to empty all stormwater and sediment from each interceptor prior to fall rainfall allowing LRTC to enter the rainy season with dry interceptors. Pumping and discharge of stormwater into the City of Richmond's sanitary system is scheduled to be repeated prior to every wet season and during seasonal rainfall.

4.0 BETTER BUSINESS PRACTICES / GOOD HOUSE KEEPING

Levin-Richmond Terminal Corporation continues to work closely with Environmental Technical Services to improve and upgrade each site process that could adversely impact the environment. Improvements are not limited to but include the following:

LRTC continually reviews it operations and practices in order to improve "Best Management Practices" and stormwater pollution prevention measures.

Primary pollution prevention measures include the sweeping of the facility during business hours using vacuum power sweepers; placement of straw-swaddles and other pollution prevention materials, at each drain entry and outflow; placement of additional absorbent within each interceptor during rainfall; sealing of stormwater system's inlets during the dry season; routine site inspections; returning migrated sediment to adjacent stockpiles; spraying water, collected stormwater, and surfactant` onto stockpiles for dust control; maintaining and upgrading equipment; and the continual upgrade of stormwater systems.

4.1 Significant Materials

LRTC'S bulk material stockpiles are bermed, using ten-foot high concrete jackwalls. Subsequent to jackwall placement, fork pockets, used for their repositioning, are sealed with gaskets. Coal and Green Coke stockpiles are sealed using HaulRoad or SoilSement. All of the stockpiles are misted with water to decrease airborne particulates. Should runoff from the stockpiles occur, the water is vacuumed and recycled back onto the stockpiles by spraying.

This is performed using a vacuum/water truck. Refer to Table I for "Significant Materials" Types and Quantities.

Chemical "Significant Materials" are related to the maintenance, repair, and fueling of vehicles and materials handling equipment. Chemicals are stored in enclosed areas and transported in spill-resistant containers, using double containment tubs, drip pans, and pollution prevention materials as needed to eliminate drips, spills, and leaks. Refer to Table II for "Significant Materials" Best Management Practices (BMPs).

4.2 Federal Standard for Non-Road Engines, Emissions Reduction

In 2008, LRTC implemented a policy that all vehicles and equipment purchased will be compliant with Federal Standards (Tier 3 or better) for Non-road Engines.

4.3 Street Sweeper

In 2001 LRTC purchased an in-house Tennant truck-mounted vacuum power sweeper, which is scheduled to perform sweeping of outside surface areas, and cleanup following the unloading and loading of ships. The sweeper is also positioned and manned during appropriate cargo operations to assist in any necessary cleanup.

A second vacuum power sweeper, manufactured by Tennant, was purchased by LRTC and has been working onsite since January 1, 2004.

In October 2008 LRTC purchased a TYMCO model 435 vacuum sweeper, equipped with a tier 3 engine, to assist in sweeping.

4.4 Trailer Mounted Vacuum

In 2008, LRTC purchased a Veermer 500 trailer mounted vacuum compliant with Federal Standards (Tier 3 or better) for Non-road Engines. The vacuum is equipped with a high-pressure water spray and is used to clean and remove sediment from the interceptors.

4.5 Brooms

LRTC operates two tractors with broom attachments: these are an IT-28 and a Cat 930H tractor with a tier 3 engine purchased in 2008 to perform cleanup of the capped surface following cargo operations.

4.6 Water Truck

An LRTC water truck has been converted to pump and contain water from interceptors SW-1 through SW-7 prior to permitted discharge into the sanitary sewer or spraying onto stockpiles. This helps to prevent the stormwater within interceptors SW-3 through SW-7 from reaching levels that would outflow into the Lauritzen Channel.

A Klein 2,500 gallon water truck has been purchased with rear sprays to wet the road, side sprays and a remote control water canon to spray the stockpiled bulk materials and front sprays to wash the roads. The truck is equipped to pump water out of the stormwater interceptors during cleanout events.

4.7 Straw Swaddles

Straw swaddles are placed around the perimeter of each interceptor and storm drain that is not raised. The steel plates covering interceptors SW-3 through SW-7 have a tight seal, making it unlikely that material would enter the basin. Interceptor SW-3, located near the hopper building, is covered with sediment-proof fabric when the hopper is in use to prevent dropping material from the hopper onto the interceptor. All drain inlets are sealed with plastic sheeting or sediment-proof fabric and straw bales throughout the dry season.

Daily inspections are conducted by LRTC's supervisors of all working stockpiles, mobile equipment, and conveying equipment. LRTC's supervisors and employees attempt to eliminate the buildup of material on concrete jackwalls, equipment, roadways, and surfaces. There is constant attention to leaks and spills. Small spills are given the same attention as large spills.

Jackwalls are placed around stockpiles for containment. Straw swaddles and absorbents are used when appropriate.

4.8 Absorbent Materials

Absorbent snakes, socks, pillows, and filters are placed around and within each interceptor and storm drain. The absorbent materials are photosensitive and have a limited life span. Each absorbent type is closely monitored and on a replacement schedule. The absorbent materials are white, allowing easy detection of saturation with waste.

Emergency spill response stations have been placed strategically throughout the site in close proximity to areas where potential contaminants are used or stored. Cleanup materials are located in each work vehicle. These materials are stored in foil factory sealed bags to maintain their integrity. Ample supplies of absorbent booms are stored at LRTC. Refer to Attachment B, Figures, for a map indicating Spill Response Stations.

A Dock Emergency Response Station has been established to efficiently organize access to adequate cleanup supplies.

Exposed soil and ties beneath railroad car "parking stations" have been covered with "Trackmat," an absorbent fabric barrier, prescribed and provided by American Textiles. This material is scheduled for routine replacement.

Throughout the wet season straw bales or swaddles surround each drain inlet. Drain Guards have been placed within all drain inlets located on the former Heckathorn facility parcel. Each inlet is sealed with plastic and/or Extech fabric.

LRTC's staff and Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform random site inspections and to advise LRTC as to effective pollution prevention improvements. Environmental Technical Services, inspects LRTC's absorbent supply and placement at the beginning of each wet season, and then instructs as to effective changes in material, quantity, or placement, which could increase filtration efficiency.

Stormwater runoff must flow through fabrics and absorbents prior to entering the stormwater interceptor or drain outflow. Additional straw swaddles, sediment pillows, and absorbent materials were added to these areas during the wet season's loading and unloading activities.

During the dry season interceptors were sealed by pressing straw bales, absorbents, and Extech fabric tightly against each system's inflow. Inflow grates flush with grade are sealed with plastic sheeting. Where traffic allows, each grate is covered with, and surrounded by straw swaddles.

The absorbents used are as follows;

Straw Swaddles (placed around drain entry and areas of inflow to storm drain systems).

Oil Absorbent Socks (placed inside and outside of straw bales and drain entry).

Absorbent Diapers (placed within storm drains).

Sediment proof fabric is placed over each drain entry.

DrainGuard Catch Basin Insert (funnel placed at drain entry with an absorbent pillow inside).

UltraGuard Socks (attached to each drain outflow pipe). The socks are constructed using a sediment-proof fabric to capture suspended solids.

Track Mats (Hydrocarbons absorbent) are placed on the railroad track floor where railcars are parked between projects.

Extech Fabric (placed over drain inlets). This fabric is manufactured to allow water flow through the fabric while trapping hydrocarbons, metals, and sediment. The fabric is currently used to cover drain inlets throughout the wet season.

Environmental Technical Services has been retained to perform documented monthly site inspections of BMPs and stormwater systems.

The monitoring and upgrading of stormwater systems is ongoing. The upgrading of systems includes, but is not limited to: constructing primary stormwater interceptors and secondary sediment basins; covering stormwater runoff drainage trenches with asphalt/concrete; constructing curbs to direct drainage; replacing deteriorated asphalt, constructing concrete driveways; sealing drain inlets with straw bales and/or plastic sheeting, building concrete berms to control stormwater runoff; capping exposed soil; spraying stockpiled material with water, collected stormwater, or surfactant; upgrading equipment; installing a stormwater system shutoff valve; and increasing the scheduled emptying and cleaning of stormwater systems.

4.9 General Maintenance and Stormwater Improvements

LRTC maintains a log of various stormwater pollution prevention measures and site improvements. Included are increased draining and cleaning of stormwater interceptors; capturing runoff from stockpiled bulk materials for recycling back onto the piles by spraying; removing SW-7's one-way tidal valve and replacing it with a shutoff valve; and continued training.

4.10 Training

On September 22 through 24, 2004, Blue Water & Associates conducted Hazardous Materials, Spill Emergency Response, OSHA CFR 1910:20 training at LRTC. Twenty-five LRTC

employees completed certification. Annual training and certification are an integral component of LRTC's best management plan.

Training included, but was not limited to, the following:

OSHA Hazardous Materials Standard
Recognizing hazardous materials
Hazardous materials basics, terms, and definitions
Hazardous communications (HMIS, NFPA, MSDS's, DOT and ERG)
Decontamination
Toxicology, PPE,
Confined space entry
Department of Transportation exercises
Spill control, containment, and cleanup
Emergency procedures, and ICS

In January 2005, all LRTC supervisors were instructed by ETS in stormwater pollution prevention. The course included: Best Management Practices, regulations, surface water sensitivity, spill prevention, spill response, good housekeeping, pollution prevention, sampling and analyses, benchmarks, and reporting.

LRTC's stormwater pollution prevention supervisor Tony Lester attended a Qualified Individual Workshop on June 25 and 26, 2003.

In 2005 LRTC staff attended spill response training that included, but was not limited to, the following:

Site safety
Initial response and assessment actions
Boom design and strategy
Maritime security concerns
Oil spill simulations
Skimmer design and strategy
Alternate response options
Oiled wildlife cautions
Shoreline clean-up assessments (SCAT)
Decontamination
Spill impacts and cost concerns
Survey of response equipment staging area
Initial response strategies
Site protection strategy deployment

In May 2008, Tony Lester and Helen Mawhinney attended a seminar for readiness to spill response.

In 2009, Tony Lester continued ongoing stormwater pollution prevention and sampling training through Environmental Technical Services. Tony manages and trains a stormwater maintenance crew of seven. Stormwater pollution prevention and spill response protocol are routinely discussed at LRTC staff meetings.

ETS developed a Pollution Prevention Course in April 2010 and is in the process of training LRTC employees in current Best Management Practices.

4.11 Marine Spill Emergency Response

LRTC has a contract with NRC Environmental, an emergency response contractor, to immediately respond to an LRTC marine spill, should one occur. NRC Environmental provides 24-hour emergency response on both land and water. This contract includes providing emergency response vessels, personnel, absorbent consumables, and Coast Guard-approved oil containment booms.

The Coast Guard Marine Safety Office (MSO) requires each visiting cargo vessel to have an existing OSRO with an emergency response contract prior to the Coast Guard allowing entry into US Ports.

4.12 Inspections

Daily inspections of all working stockpiles, mobile equipment, and conveying equipment are conducted by LRTC's supervisors and employees for containment and cleanliness to eliminate the buildup of material on jack walls, k-rail, equipment, roadways, and surfaces. Small spills are given the same attention as large spills.

LRTC staff and/or Environmental Technical Services (ETS) perform site observations. ETS has been retained to perform site inspections randomly and to advise LRTC as to effective pollution prevention improvements.

4.13 Railroad

In order to improve surface runoff and replace deteriorating asphalt two (2) railroad tracks with concrete street panels were installed at the intersection of Fourth Street and Wright Avenue, outside of the main entrance to Levin-Richmond-Terminal. Exposed soil adjacent to the railroad was paved with concrete to prevent the migration of sediment.

5.0 STORMWATER SYSTEMS, CLEANING EVENTS

Plans for the annual cleaning of five stormwater interceptors were developed by LRTC's personnel with Environmental Technical Services in June 2003. Storm drain cleaning was increased to several times throughout the year beginning in June 2005 and remains an active part of LRTC's SWPPP. The interceptors are emptied on an-as-needed-basis to attempt to eliminate stormwater discharge to the Bay. A stormwater discharge permit was obtained from the City of Richmond's Waste Water Treatment Program to empty and clean all interceptors several times annually.

5.1 Sample Collection

Stormwater systems SW-3 through SW-7 were constructed with sufficient capacity to hold all stormwater runoff generated during most rainfall events. However, extraordinary rainfall occurred on January 27, 2010 causing systems SW-3 through SW-6 to outflow into the Lauritzen Channel. Annual stormwater samples were collected from these systems during this rain event. There was no measurable discharge during all other rain events.

For the purpose of emptying and cleaning the stormwater systems to eliminate outflow a composite stormwater sample was collected and analyzed from interceptors SW-2 through SW-7 on September 30, 2009; SW-3 through SW-7 on December 3, 2009; SW-1 through SW-7 on December 10, 2009; SW-1 through SW-7 on February 8 and 10, 2010; and SW-2 through SW-7 on April 29, 2010.

Laboratory analytical results were presented to the City of Richmond Waste Water Division, Pretreatment Program, to determine if water removed during the process of emptying and cleaning the interceptors could be discharged into the sanitary sewer. The City of Richmond inspected the storm drains and sanitary sewer, and discharge was approved under LRTC's Industrial Discharge Permit. The Waste Water Division was notified 48-hours prior to each project start to allow for city inspection.

LRTC's OSHA certified personnel emptied and cleaned the interceptors under a site-specific Health and Safety Plan. LRTC pumped water from the interceptors utilizing a specially equipped water truck. Water was discharged from the water truck directly into the sanitary sewer. Sediment was removed from the interceptors using stormwater to liquefy the sediment, which was then pumped into the vacuum truck and recycled back onto the stockpiles from which it was generated. Subsequent to emptying, each interceptor's floor and sidewalls were pressure-washed. This process was repeated until all sediment had been removed and the cleaning of each interceptor complete.

A groundwater monitoring pump (GMP) was purchased by LRTC to obtain an undisturbed representative sample of collected stormwater. Non-toxic FDA approved tubing was attached to the pump to transport stormwater into the appropriate containers

A composite stormwater sample was collected by opening an access port into the large interceptor cover. A GMP was lowered into standing water in the last chamber and pumped into appropriate preserved sample containers. Three discrete, 40-ml, Volatile Organics Analysis bottles were filled from each interceptor to be composited by a State certified analytical laboratory as one sample for analysis. Stormwater samples for all other analyses were composited during field sampling. This was accomplished by collecting equal amounts of water from each interceptor within a laboratory supplied clean 2.5 gallon Teflon container. Upon completion this water was then decanted into sample bottles. Certified clean, properly preserved bottles were supplied by a state certified analytical laboratory.

Each sample bottle was labeled with LRTO as the project name, stormwater system identification number, sampler's name, date, time and preservative. The samples were placed within a cooler on ice, and transported to Accutest Laboratories, Certificate No. 08258CA, under chain of custody, within the sample's holding time.

5.2 Analyses

Laboratory analysis for oil and grease (O&G) was performed using EPA Method 1664; benzene, toluene, ethylbenzene, total xylenes, (BTEX) using EPA Method 8021; specific conductance (SC) using EPA Method 120.1; pH using a HYDAC meter; copper, lead, nickel, and zinc (Cu, Pb, Ni, Zn) using EPA Method 200.8; total suspended solids (TSS) using Standard Method SM18 2540D; biological oxygen demand (BOD) using Standard Method SM5210B; pesticides using EPA Method 8081; and polychlorinated biphenyls (PCBs) using EPA Method 8082.

Stormwater samples SW-2 through SW-7 collected on September 30, 2009; and SW-1 through SW-7 collected on April 29, 2010 were analyzed for O&G, BTEX, SC, pH, Cu, Pb, Ni, Zn, TSS, and BOD. Stormwater samples SW-1 through SW-7 collected on December 10, 2009 and February 8, 2010 were analyzed for O&G, BTEX, SC, pH, Cu, Pb, Ni, Zn, and TSS. Stormwater samples SW-3 through SW-7 collected on December 3, 2009; SW-1 and SW-2 on December 10, 2009; and SW-1 through SW-7 on February 10, 2010 were analyzed for BOD. Samples collected on November 19, 2009 and April 29, 2010 were analyzed for pesticides and PCBs using EPA Method 8082.

Analytical results are summarized in Tables A through F, Attachment C, Tables of Analytical Results.

6.0 SUMMARY

The finding and results submitted in this document satisfy the requirements of the Operations and Maintenance Plan, as stipulated by the U.S. EPA Consent Decree for the completed Upland Cap Installation for the Former United Heckathorn Facility, Richmond, California.

Appendix A

Tables of Analytical Results

TABLE A
Stormwater Interceptor SW-2 Through SW-7, Composite Sample
Sampled: September 30, 2009

Date of Sample: September 30, 2009

Person Collecting Sample: Helen Mawhinney
Title: Senior Environmental Specialist

Analytical Laboratory:
Accutest Analytical Labs, Inc.

Signature: Helen Mawhinney

	SW-2 through SW7 Composite Sample	Reporting Limit	Unit	EPA Method/ Standard Method
Specific Conductance	9,940.0	1.0	*umhos/cm*	120.1
TSS	50.0	5.0	ppm	SM18 2540D
Benzene	ND	0.5	ppb	8021
Toluene	ND	0.5	ppb	8021
Ethylbenzene	ND	0.5	ppb	8021
Total Xylenes	ND	1.0	ppb	8021
Oil and Grease (HEM)	ND	5.0	ppm	1664A
Copper	0.026	0.005	ppm	E200.8
Lead	0.020	0.005	ppm	E200.8
Nickel	0.007	0.005	ppm	E200.8
Zinc	0.198	0.001	ppm	E200.8
pH	8.1	6.0-9.0	STU	Hydac
Biological Oxygen Demand	140.0	5.0	ppm	SM5210B

TSS = Total Suspended Solids
ND = Not Detected for this constituent
Samples not analyzed for pesticides (EPA Method 8081) and Arodor (EPA Method 8082) because it is not the Wet Season.

TABLE B
Stormwater Interceptor SW-3 Through SW-7, Composite Sample
Sampled November 19, 2009

Date of Sample: November 19, 2009

Person Collecting Sample: Helen Mawhinney
Title: Senior Environmental Specialist

Analytical Laboratory:
Accutest Analytical Labs, Inc.

Signature: Helen Mawhinney

Sample No. / Analyte	Analytical Result	Reporting Limit	Unit	EPA Method/ Standard Method
SW-3				
Pesticides	ND	*varies*	ppb	8081
PCBs	ND	0.094	ppb	8082
SW-4				
Pesticides	ND	*varies*	ppb	8081
PCBs	ND	0.094	ppb	8082
SW-5				
Pesticides	ND	*varies*	ppb	8081
PCBs	ND	0.094	ppb	8082
SW-6				
Pesticides	ND	*varies*	ppb	8081
PCBs	ND	0.094	ppb	8082
SW-7				
Pesticides	ND	*varies*	ppb	8081
PCBs	ND	0.094	ppb	8082

ND = Not detected for this constituent

TABLE C
Stormwater Interceptor SW-1 Through SW-7, Composite Sample
Sampled: December 10, 2009

Composite Sample SW-1 & SW-2 collected on December 10, 2009, analyzed for BOD

Composite Sample SW-3 through SW-7 collected on December 3, 2009, analyzed for BOD

Composite sample SW-1 through SW-7 collected on December 10, 2009, analyzed for all other analytes

Person Collecting Sample: Helen Mawhinney
Title: Senior Environmental Specialist
Signature: Helen Mawhinney

Analytical Laboratory:
Accutest Analytical Labs, Inc.

ANALYTE	LRTO SW-1 through SW7 Composite Sample	Reporting Limit	Unit	EPA Method/ Standard Method
Specific Conductance	6230.0	1.0	umhos/cm	120.1
TSS	56.0	5.0	ppm	SM18 2540D
Benzene	ND	0.5	ppb	8021
Toluene	ND	0.5	ppb	8021
Ethylbenzene	ND	0.5	ppb	8021
Total Xylenes	ND	1.0	ppb	8021
Oil and Grease (HEM)	ND	5.0	ppm	1664A
Copper	0.015	0.005	ppm	E200.8
Lead	0.016	0.005	ppm	E200.8
Nickel	0.005	0.005	ppm	E200.8
Zinc	0.113	0.010	ppm	E200.8
pH	7.9	6.0-9.0	STU	Hydac
Biological Oxygen Demand (BOD) *SW-1 & SW-2 Comp. *sampled 12/10/09*	ND	5.0	ppm	SM5210B
Biological Oxygen Demand (BOD) *SW-3 through SW-7 Comp. *sampled 12/3/09*	ND	5.0	ppm	SM5210B

* Sample composited in the field as one sample for analysis
TSS = Total Suspended Solids ND = Not detected for this constituent

TABLE D
Stormwater Interceptor SW-1 Through SW-7, Composite Sample
Sampled: February 8 & 10, 2010

Composite Sample SW-1 through SW-7 collected on February 8, 2010 analyzed for BTEX, Copper, Lead, Nickel, Zinc, Oil & Grease, TSS, and Spec. Cond.

Composite Sample SW-1 through SW-7 collected on February 10, 2010 analyzed for BOD

All samples collected from same stormwater

Person Collecting Sample: Helen Mawhinney
Title: Senior Environmental Specialist
Signature:

Analytical Laboratory:
Accutest Analytical Labs, Inc.

ANALYTE	LRTO SW-1 through SW7 Composite Sample	Reporting Limit	Unit	EPA Method/ Standard Method
Specific Conductance *sampled 2/8/10*	841.0	1.0	umhos/cm	120.1
TSS	5.0	5.0	ppm	SM18 2540D
Benzene	ND	0.5	ppb	8021
Toluene	ND	0.5	ppb	8021
Ethylbenzene	ND	0.5	ppb	8021
Total Xylenes	ND	1.0	ppb	8021
Oil and Grease (HEM)	ND	5.0	ppm	1664A
Copper	<0.005	0.005	ppm	E200.8
Lead	<0.005	0.005	ppm	E200.8
Nickel	<0.005	0.005	ppm	E200.8
Zinc	0.070	0.010	ppm	E200.8
pH	7.8	6.0-9.0	STU	Hydac
Biological Oxygen Demand (BOD) *SW-1 through SW-7 Comp. *sampled 2/10/10*	ND	5.0	ppm	SM5210B

* Sample composited in the field as one sample for analysis
TSS = Total Suspended Solids ND = Not detected for this constituent

TABLE E
Stormwater Interceptor SW-1 Through SW-7, Composite Sample
Sampled: April 29, 2010

Composite Sample SW-1 through SW-7 collected on 4/29/10

Person Collecting Sample: Helen Mawhinney
Title: Senior Environmental Specialist

Analytical Laboratory:
Accutest Analytical Labs, Inc.

Signature: Helen Mawhinney

ANALYTE	LRTO SW-1 through SW7 Composite Sample	Reporting Limit	Unit	EPA Method/ Standard Method
Specific Conductance *sampled 2/8/10*	1370.0	1.0	umhos/cm	120.1
TSS	14.0	5.0	ppm	SM18 2540D
Benzene	ND	0.5	ppb	8021
Toluene	ND	0.5	ppb	8021
Ethylbenzene	ND	0.5	ppb	8021
Total Xylenes	ND	1.0	ppb	8021
Oil and Grease (HEM)	ND	5.0	ppm	1664A
Copper	15.8	0.005	ppm	E200.8
Lead	23.7	0.005	ppm	E200.8
Nickel	ND	0.005	ppm	E200.8
Zinc	156.0	0.010	ppm	E200.8
pH	8.0	6.0-9.0	STU	Hydac
Biological Oxygen Demand (BOD) *SW-1 through SW-7 Comp.	ND	5.0	ppm	SM5210B

* Sample composited in the field as one sample for analysis
TSS = Total Suspended Solids ND = Not detected for this constituent

TABLE F
Stormwater Interceptor SW-3 Through SW-7, Composite Sample
Sampled: April 29, 2010

Pesticides	ND	varies	ppb	8081
PCBs	ND	0.01	ppb	8082

* Sample composited in the field as one sample for analysis
TSS = Total Suspended Solids ND = Not detected for this constituent

Appendix B

Laboratory Analytical Reports

Laboratory Analytical Reports
Chain of Custodies

September 30, 2009

Northern California ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

10/09/09

Technical Report for

ETS-Environmental Technical Services

City of Richmond Discharge Samples,Richmond,CA

PO# TL-19655

Accutest Job Number: C7749

Sampling Date: 09/30/09

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report: **23**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Table of Contents

Sections: 1 2 3 4 5 6

Sample Summary

ETS-Environmental Technical Services

Job No: C7749

City of Richmond Discharge Samples,Richmond,CA
Project No: PO# TL-19655

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C7749-1	09/30/09	00:00	HM	10/02/09	AQ	Water	LRTO(SW2-SW7)FIELD COMP
C7749-2	09/30/09	00:00	HM	10/02/09	AQ	Water	LRTO(SW2-SW7)LAB COMP

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO(SW2-SW7)FIELD COMP		
Lab Sample ID:	C7749-1	Date Sampled:	09/30/09
Matrix:	AQ - Water	Date Received:	10/02/09
		Percent Solids:	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Copper	25.6	5.0	ug/l	1	10/06/09	10/06/09	CT	EPA 200.7 [1]	EPA 200.7 [2]
Lead	20.3	5.0	ug/l	1	10/06/09	10/06/09	CT	EPA 200.7 [1]	EPA 200.7 [2]
Nickel	7.3	5.0	ug/l	1	10/06/09	10/06/09	CT	EPA 200.7 [1]	EPA 200.7 [2]
Zinc	198	10	ug/l	1	10/06/09	10/06/09	CT	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA885
(2) Prep QC Batch: MP1658

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO(SW2-SW7)FIELD COMP		
Lab Sample ID:	C7749-1	Date Sampled:	09/30/09
Matrix:	AQ - Water	Date Received:	10/02/09
		Percent Solids:	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Oil and Grease	< 5.0	5.0	mg/l	1	10/07/09	RL	EPA 1664A
Solids, Total Suspended	50.0	5.0	mg/l	1	10/06/09	MF	SM18 2540D
Specific Conductivity	9940	1.0	umhos/cm	1	10/06/09	MF	SM18 2510B/EPA 120.1

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO(SW2-SW7)LAB COMP		
Lab Sample ID:	C7749-2	**Date Sampled:**	09/30/09
Matrix:	AQ - Water	**Date Received:**	10/02/09
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ8646.D	1	10/07/09	JA	n/a	n/a	GJJ340
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		65-135%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA

ETSCAS1538 C7749

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346
CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO.:

PO No. 19655
Project No./Name
LRT DISCHARGE

BOD was FedEx'd to ALPHA Labs under separate C of C-same composite sample same PO No.

TURNAROUND TIME: 5 Day/Same as BOD

SAMPLER: HELEN MAWHINNEY

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB NI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<0.6 mg/L	1.0 µmhos/c	<1.0 mg/L	5.0 mg/L	0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
2										
**LRTO SW-2 through SW-7 SW-3 SW-4 SW-5, SW-6, SW-7	9/30/09		#9	X	X		X	*See Note	LRTO(SW2-SW7) X	(-1) Field Comp
*LRTO SW-2, SW-3, SW4, SW-5, SW-6, SW-7			#24			~~BTEX~~ BO2 BTX (X)				(6:1 Composite)
*LTRO SW-2	9/30/09		4 vials (w/HCL)	(6)						
*LTRO SW-3										LRTO SW-3
*LRTO SW-4										through
*LRTO SW-5										SW-7
*LRTO SW-6									LRTO(SW2-SW7)	labcomp.
*LRTO SW-7										(-2)

*LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 are to be composited in the lab as one sample for analyses for BTEX
LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses * Accutest, please use your detection limts when lower

Relinquished By: Helen Mawhinney 9/30/09 1612 — Received By: Helen Mawhinney/ETS Fridge 9/30/09 16:12
print / signature / date/time — print / signature / date/time
Relinquished By: Helen Mawhinney/ETS Fridge 9/30/09 1729 — Received By: ETS Fridge 9/30/09 17:29
Relinquished By: Helen Mawhinney 10/2/09 — Received By: 10/2/09 1355 Temp 2.4°C
10/02/09 15:16

C7749: Chain of Custody
Page 1 of 1

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C7749
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ340-MB	JJ8625.D	1	10/07/09	JA	n/a	n/a	GJJ340

The QC reported here applies to the following samples: Method: SW846 8021B

C7749-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	103%	65-135%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C7749
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ340-BS	JJ8630.D	1	10/07/09	JA	n/a	n/a	GJJ340
GJJ340-BSD	JJ8631.D	1	10/07/09	JA	n/a	n/a	GJJ340

The QC reported here applies to the following samples: Method: SW846 8021B

C7749-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5	4.3	86	5.5	110	24	65-135/30
100-41-4	Ethylbenzene	5	4.3	86	5.5	110	24	65-135/30
108-88-3	Toluene	5	4.5	90	5.7	114	24	65-135/30
1330-20-7	Xylenes (total)	15	12.6	84	16.2	108	25	65-135/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	101%	101%	65-135%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C7749
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C7695-1MS	JJ8641.D	1	10/07/09	JA	n/a	n/a	GJJ340
C7695-1MSD	JJ8642.D	1	10/07/09	JA	n/a	n/a	GJJ340
C7695-1	JJ8640.D	1	10/07/09	JA	n/a	n/a	GJJ340

The QC reported here applies to the following samples: Method: SW846 8021B

C7749-2

CAS No.	Compound	C7695-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		5	5.5	110	5.6	112	2	65-135/25
100-41-4	Ethylbenzene	ND		5	5.4	108	5.4	108	0	65-135/25
108-88-3	Toluene	ND		5	5.6	112	5.6	112	0	65-135/25
1330-20-7	Xylenes (total)	ND		15	16.0	107	15.9	106	1	65-135/25

CAS No.	Surrogate Recoveries	MS	MSD	C7695-1	Limits
460-00-4	4-Bromofluorobenzene	102%	101%	105%	65-135%

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1658
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/06/09

Metal	RL	IDL	MDL	MB raw	MB final
Aluminum	50	14	21		
Antimony	10	6.9	5.3		
Arsenic	10	4.4	3.1		
Barium	5.0	.6	.7		
Beryllium	5.0	.1	.2		
Boron	50	8.6	11		
Cadmium	2.0	.3	.3		
Calcium	50	29	12		
Chromium	5.0	.4	.6		
Cobalt	5.0	.4	.4		
Copper	5.0	.8	1.1	-0.80	<5.0
Iron	50	2.6	18		
Lead	5.0	3.3	1.3	-0.80	<5.0
Lithium	10	2.2	2.5		
Magnesium	50	9.6	13		
Manganese	5.0	.1	.2		
Molybdenum	5.0	1.3	1		
Nickel	5.0	.8	.5	-0.50	<5.0
Potassium	500	58	60		
Selenium	20	14	12 -		
Silicon	50	3.4	5.3		
Silver	5.0	.9	.7		
Sodium	100	15	13		
Strontium	10	.3	2.4		
Thallium	20	6.5	6.4		
Tin	50	2.3	2		
Titanium	2.0	.2	.2		
Vanadium	5.0	.7	.5		
Zinc	10	.9	1.1	0.60	<10

Associated samples MP1658: C7749-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1658
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/06/09

Metal	C7752-1 Original	MS	Spikelot MPIR1	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt					
Copper	763	1280	500	103.4	70-130
Iron					
Lead	11.2	528	500	103.4	70-130
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	22.1	520	500	99.6	70-130
Potassium					
Selenium					
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	469	1010	500	108.2	70-130

Associated samples MP1658: C7749-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1658
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/06/09

Metal	C7752-1 Original	MSD	Spikelot MPIR1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	763	1260	500	99.4	1.6	20
Iron						
Lead	11.2	516	500	101.0	2.3	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	22.1	507	500	97.0	2.5	20
Potassium						
Selenium						
Silicon						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	469	981	500	102.4	2.9	20

Associated samples MP1658: C7749-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1658
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date:		10/06/09				10/06/09			
Metal	BSP Result	Spikelot MPIR1	% Rec	QC Limits	BSD Result	Spikelot MPIR1	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	483	500	96.6	85-115	486	500	97.2	0.6	
Iron									
Lead	526	500	105.2	85-115	504	500	100.8	4.3	
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	500	500	100.0	85-115	487	500	97.4	2.6	
Potassium									
Selenium									
Silicon									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	502	500	100.4	85-115	488	500	97.6	2.8	

Associated samples MP1658: C7749-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1658
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 10/06/09

Metal	C7752-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	763	735	3.7	0-10
Iron				
Lead	11.2	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	22.1	22.5	1.8	0-10
Potassium				
Selenium				
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	469	474	1.0	0-10

Associated samples MP1658: C7749-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
HEM Oil and Grease	GP1070/GN2422	5.0	0.0	mg/l	40	35.4	88.5	78-114%
Solids, Total Suspended	GN2411	5.0	0.0	mg/l				
Specific Conductivity	GN2409	1.0	0.0	umhos/cm				

Associated Samples:
Batch GN2409: C7749-1
Batch GN2411: C7749-1
Batch GP1070: C7749-1
(*) Outside of QC limits

6.1
6

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP1070/GN2422	mg/l	40	35.3	0.3	18%

Associated Samples:
Batch GP1070: C7749-1
(*) Outside of QC limits

6.2
6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C7749
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Suspended	GN2411	C7717-1	mg/l	6.0	5.0	18.2	0-25%
Specific Conductivity	GN2409	C7772-1	umhos/cm	643	638	0.8	0-25%

Associated Samples:
Batch GN2409: C7749-1
Batch GN2411: C7749-1
(*) Outside of QC limits

6.3
6

Northern California
ACCUTEST
Laboratories

10/09/09

Technical Report for

ETS-Environmental Technical Services

City of Richmond Discharge Samples,Richmond,CA

PO# TL-19655

Accutest Job Number: C7709X

Sampling Date: 09/30/09

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report:

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Accutest Laboratories

Sample Summary

ETS-Environmental Technical Services

Job No: C7709X

City of Richmond Discharge Samples, Richmond, CA
Project No: PO# TL-19655

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
C7709-1X	09/30/09	00:00 HM	10/01/09	AQ	Water	LRTO(SW2-SW7)FIELD COMP

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA

"ETSCASJ538" C7109

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346

CITY OF RICHMOND
BOD **DISCHARGE SAMPLES**

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:

PO No. J2 19655
Project No./Name
LRT DISCHARGE

TURNAROUND TIME: 5 DAY

SAMPLER:

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***	SAMPLE NO SW-2 SW-7			<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-3 through SW-7 SW-3 SW-4 SW-5, SW-6, SW-7	9/30/09							X	LRTO (SW2-SW7)	Field Comp SAMPLE NO SW-2 → SW-7 (-1)
*LRTO SW2 SW-3, SW4, SW-5, SW-6, SW-7										
*LTRO SW-3										LRTO SW-3
*LRTO SW-4										through
*LRTO SW-5										SW-7
*LRTO SW-6										lab comp.
*LRTO SW-7										

LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses * Accutest, please use your detection limts when lower

Relinquished By:
Helen Mawhinney | Helen Mawhinney | 9/30/09 1507
print | signature | date/time

Received By:
FED EX | | 9/30/09
print | signature | date/time

Relinquished By:
| | |
print | signature | date/time

Received By:
Shahdehi | Shahdehi | 10/1/09 1000
print | signature | date/time

"BOD Samples" Shipped directly to ALPHA by the client. 10/01/09. 11:26 AM

Subcontract Data

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

ELAP Certificate Numbers 1551 and 2728

08 October 2009

Accutest Northern California, Inc.
Attn: Diane Theesen
2105 Lundy Avenue
San Jose, CA 95131
RE: Levin Richmond Terminal
Work Order: 09J0030

Enclosed are the results of analyses for samples received by the laboratory on 10/01/09 10:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chelsea L. Sandelin For Robbie C. Phillips
Project Manager

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 10/08/09 14:55
Project No: C7709
Project ID: Levin Richmond Terminal

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09J0030	10/01/2009 10:00	ACCUTEST	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C7709-1 Field Comp (SW2-SW7)	09J0030-01	Water	09/30/09 15:01	10/01/09 10:00

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

10/8/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 10/08/09 14:55
Project No: C7709
Project ID: Levin Richmond Terminal

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09J0030	10/01/2009 10:00	ACCUTEST	

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
C7709-1 Field Comp (SW2-SW7) (09J0030-01)			**Sample Type: Water**			**Sampled: 09/30/09 15:01**		
Conventional Chemistry Parameters by APHA/EPA Methods								
Biochemical Oxygen Demand	SM5210B	AJ90206	10/02/09 08:00	10/07/09 16:27	1	ND mg/l	5.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

10/8/2009

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CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 10/08/09 14:55
Project No: C7709
Project ID: Levin Richmond Terminal

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09J0030	10/01/2009 10:00	ACCUTEST	

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AJ90206 - General Preparation										
Blank (AJ90206-BLK1)				Prepared: 10/02/09 Analyzed: 10/07/09						
Biochemical Oxygen Demand	ND	5.0	mg/l							
Blank (AJ90206-BLK2)				Prepared: 10/02/09 Analyzed: 10/07/09						
Biochemical Oxygen Demand	ND	5.0	mg/l							
LCS (AJ90206-BS1)				Prepared: 10/02/09 Analyzed: 10/07/09						
Biochemical Oxygen Demand	184	5.0	mg/l	200		92.0	80-120			
LCS Dup (AJ90206-BSD1)				Prepared: 10/02/09 Analyzed: 10/07/09						
Biochemical Oxygen Demand	187	5.0	mg/l	200		93.5	80-120	1.62	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

10/8/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 10/08/09 14:55
Project No: C7709
Project ID: Levin Richmond Terminal

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09J0030	10/01/2009 10:00	ACCUTEST	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
PQL	Practical Quantitation Limit

3.9°C

Northern California ACCUTEST Laboratories

Accutest ID and PO#: C7709

3334 Victor Court, Santa Clara, CA 95054 Phone :(408)588-0200 Fax: (408)588-0201

Subcontract Chain of Custody

09J0030

Subcontract Lab: Alpha Analytical
Date Sent: 09/30/09
Date Due: 5 Day TAT 5 Day TAT

Project Name: Levin Richmond Terminal
Project Location: Richmond, CA

Accutest Lab Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time Sampling Time on the bottle
C7709-1	Field Comp (SW2-SW7)	Wastewater	BOD	09/30/09	

Comments: Samples shipped via FedEx By the client; 10/01/09.

Relinquished By:	Received By:	Date:	Time:
ekumar			
Relinquished By: via fedex	Received By:	Date: 10/1/09	Time: 1000
Relinquished By:	Received By:	Date:	Time:

Send the Report to: dianet@accutest.com

3.9

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA

09J0030

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346

CITY OF RICHMOND
BOD- **DISCHARGE SAMPLES**

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118

PO No TL 19655
Project No./Name
LRT DISCHARGE

TURNAROUND TIME: 5 DAY

ACCUTEST ORDER NO: SAMPLER:

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***	SAMPLE NO SW-2 SW-7			<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-3 through SW-7 SW-3 SW-4 SW-5, SW-6, SW-7	9/30/09	1501						X		Field Comp SAMPLE NO SW-2 → SW-7
*LRTO SW-2 SW-3, SW4, SW-5, SW-6, SW-7										
*LTRO SW-3										LRTO SW-2
*LRTO SW-4										through
*LRTO SW-5										SW-7
*LRTO SW-6										lab comp.
*LRTO SW-7										

LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses * Accutest, please use your detection limts when lower

Relinquished By:
Helen Mawhinney Helen Mawhinney 9/30/09 1507
print signature date/time

Received By:
FED EX 9/30/09
print signature date/time

Relinquished By:
print signature date/time

Received By:
Sandelin Sandelin 10/1/09 1000
print signature date/time

Laboratory Analytical Reports
Chain of Custodies

November 19, 2009

Northern California ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

12/01/09

Technical Report for

ETS-Environmental Technical Services

EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

LRTO-EPA-1109-19

Accutest Job Number: C8537

Sampling Date: 11/19/09

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report: **19**

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Sections: 1 2 3 4

Table of Contents

-1-

Sample Summary

ETS-Environmental Technical Services

Job No: C8537

EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA
Project No: LRTO-EPA-1109-19

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C8537-1	11/19/09	13:45	HM	11/20/09	AQ	Water	SW-3
C8537-2	11/19/09	14:02	HM	11/20/09	AQ	Water	SW-4
C8537-3	11/19/09	14:20	HM	11/20/09	AQ	Water	SW-5
C8537-4	11/19/09	14:57	HM	11/20/09	AQ	Water	SW-7

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-3		
Lab Sample ID:	C8537-1	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO7855.D	2	12/01/09	NB	11/23/09	OP1528	GOO289
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.047	ug/l	
319-84-6	alpha-BHC	ND	0.047	ug/l	
319-85-7	beta-BHC	ND	0.047	ug/l	
319-86-8	delta-BHC	ND	0.047	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.047	ug/l	
12789-03-6	Chlordane	ND	0.38	ug/l	
60-57-1	Dieldrin	ND	0.047	ug/l	
72-54-8	4,4'-DDD	ND	0.047	ug/l	
72-55-9	4,4'-DDE	ND	0.047	ug/l	
50-29-3	4,4'-DDT	ND	0.047	ug/l	
72-20-8	Endrin [a]	ND	0.047	ug/l	
7421-93-4	Endrin aldehyde	ND	0.047	ug/l	
959-98-8	Endosulfan-I	ND	0.047	ug/l	
33213-65-9	Endosulfan-II	ND	0.047	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.047	ug/l	
76-44-8	Heptachlor	ND	0.047	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.047	ug/l	
72-43-5	Methoxychlor	ND	0.047	ug/l	
8001-35-2	Toxaphene	ND	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	50%		44-140%
877-09-8	Tetrachloro-m-xylene	64%		44-140%
2051-24-3	Decachlorobiphenyl	61%		44-140%
2051-24-3	Decachlorobiphenyl	68%		44-140%

(a) Result from Signal 1.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-3		
Lab Sample ID:	C8537-1	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PP6617.D	1	11/24/09	NB	11/23/09	OP1529	GPP269
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	ug/l	
11097-69-1	Aroclor 1254	ND	0.094	ug/l	
11096-82-5	Aroclor 1260	ND	0.094	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	61%		41-134%
2051-24-3	Decachlorobiphenyl	76%		41-134%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-4		
Lab Sample ID:	C8537-2	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO7856.D	2	12/01/09	NB	11/23/09	OP1528	GOO289
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.047	ug/l	
319-84-6	alpha-BHC	ND	0.047	ug/l	
319-85-7	beta-BHC	ND	0.047	ug/l	
319-86-8	delta-BHC	ND	0.047	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.047	ug/l	
12789-03-6	Chlordane	ND	0.38	ug/l	
60-57-1	Dieldrin	ND	0.047	ug/l	
72-54-8	4,4'-DDD	ND	0.047	ug/l	
72-55-9	4,4'-DDE	ND	0.047	ug/l	
50-29-3	4,4'-DDT	ND	0.047	ug/l	
72-20-8	Endrin [a]	ND	0.047	ug/l	
7421-93-4	Endrin aldehyde	ND	0.047	ug/l	
959-98-8	Endosulfan-I	ND	0.047	ug/l	
33213-65-9	Endosulfan-II	ND	0.047	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.047	ug/l	
76-44-8	Heptachlor	ND	0.047	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.047	ug/l	
72-43-5	Methoxychlor	ND	0.047	ug/l	
8001-35-2	Toxaphene	ND	0.38	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	21% [b]		44-140%
877-09-8	Tetrachloro-m-xylene	35% [b]		44-140%
2051-24-3	Decachlorobiphenyl	19% [b]		44-140%
2051-24-3	Decachlorobiphenyl	25% [b]		44-140%

(a) Result from Signal 1.
(b) Surrogate recoveries out of control limits due to nature of sample matrix (non-target compounds).

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-4		
Lab Sample ID:	C8537-2	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PP6618.D	1	11/24/09	NB	11/23/09	OP1529	GPP269
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	ug/l	
11097-69-1	Aroclor 1254	ND	0.094	ug/l	
11096-82-5	Aroclor 1260	ND	0.094	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	64%		41-134%
2051-24-3	Decachlorobiphenyl	70%		41-134%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-5		
Lab Sample ID:	C8537-3	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO7857.D	1	12/01/09	NB	11/23/09	OP1528	GOO289
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.024	ug/l	
319-84-6	alpha-BHC	ND	0.024	ug/l	
319-85-7	beta-BHC	ND	0.024	ug/l	
319-86-8	delta-BHC	ND	0.024	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.024	ug/l	
12789-03-6	Chlordane	ND	0.19	ug/l	
60-57-1	Dieldrin	ND	0.024	ug/l	
72-54-8	4,4'-DDD	ND	0.024	ug/l	
72-55-9	4,4'-DDE	ND	0.024	ug/l	
50-29-3	4,4'-DDT	ND	0.024	ug/l	
72-20-8	Endrin [a]	ND	0.024	ug/l	
7421-93-4	Endrin aldehyde	ND	0.024	ug/l	
959-98-8	Endosulfan-I	ND	0.024	ug/l	
33213-65-9	Endosulfan-II	ND	0.024	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.024	ug/l	
76-44-8	Heptachlor	ND	0.024	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.024	ug/l	
72-43-5	Methoxychlor	ND	0.024	ug/l	
8001-35-2	Toxaphene	ND	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	56%		44-140%
877-09-8	Tetrachloro-m-xylene	49%		44-140%
2051-24-3	Decachlorobiphenyl	30% [b]		44-140%
2051-24-3	Decachlorobiphenyl	29% [b]		44-140%

(a) Result from Signal 1.
(b) Surrogate recoveries out of control limits due to nature of sample matrix (non-target compounds).

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-5		
Lab Sample ID:	C8537-3	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PP6619.D	1	11/24/09	NB	11/23/09	OP1529	GPP269
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.094	ug/l	
11104-28-2	Aroclor 1221	ND	0.094	ug/l	
11141-16-5	Aroclor 1232	ND	0.094	ug/l	
53469-21-9	Aroclor 1242	ND	0.094	ug/l	
12672-29-6	Aroclor 1248	ND	0.094	ug/l	
11097-69-1	Aroclor 1254	ND	0.094	ug/l	
11096-82-5	Aroclor 1260	ND	0.094	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	69%		41-134%
2051-24-3	Decachlorobiphenyl	72%		41-134%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-7		
Lab Sample ID:	C8537-4	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO7858.D	1	12/01/09	NB	11/23/09	OP1528	GOO289
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.024	ug/l	
319-84-6	alpha-BHC	ND	0.024	ug/l	
319-85-7	beta-BHC	ND	0.024	ug/l	
319-86-8	delta-BHC	ND	0.024	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.024	ug/l	
12789-03-6	Chlordane	ND	0.19	ug/l	
60-57-1	Dieldrin [a]	ND	0.024	ug/l	
72-54-8	4,4'-DDD	ND	0.024	ug/l	
72-55-9	4,4'-DDE	ND	0.024	ug/l	
50-29-3	4,4'-DDT	ND	0.024	ug/l	
72-20-8	Endrin [b]	ND	0.024	ug/l	
7421-93-4	Endrin aldehyde	ND	0.024	ug/l	
959-98-8	Endosulfan-I	ND	0.024	ug/l	
33213-65-9	Endosulfan-II	ND	0.024	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.024	ug/l	
76-44-8	Heptachlor	ND	0.024	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.024	ug/l	
72-43-5	Methoxychlor	ND	0.024	ug/l	
8001-35-2	Toxaphene	ND	0.19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	65%		44-140%
877-09-8	Tetrachloro-m-xylene	67%		44-140%
2051-24-3	Decachlorobiphenyl	53%		44-140%
2051-24-3	Decachlorobiphenyl	52%		44-140%

(a) Result from Signal 2.
(b) Result from Signal 1.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-7		
Lab Sample ID:	C8537-4	**Date Sampled:**	11/19/09
Matrix:	AQ - Water	**Date Received:**	11/20/09
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PP6620.D	1	11/24/09	NB	11/23/09	OP1529	GPP269
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.095	ug/l	
11104-28-2	Aroclor 1221	ND	0.095	ug/l	
11141-16-5	Aroclor 1232	ND	0.095	ug/l	
53469-21-9	Aroclor 1242	ND	0.095	ug/l	
12672-29-6	Aroclor 1248	ND	0.095	ug/l	
11097-69-1	Aroclor 1254	ND	0.095	ug/l	
11096-82-5	Aroclor 1260	ND	0.095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		41-134%
2051-24-3	Decachlorobiphenyl	73%		41-134%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Northern California
ACCUTEST Laboratories

CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

"ETSCACT525"

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C8537

Client / Reporting Information	Project Information
Company Name: Environ Tank Services	Project Name: LRTO - EPA - 1109-19
Address: 1540 Jacob Ave	Street: 402 Wright Ave
City: San Jose State: CA Zip: 95118	City: Richmond State: CA
Project Contact: Helen Mawhinney	Project #: LRTO
Phone #: 510 385-4308	EMAIL: hmawhinneyets@aol.com
Samplers's Name: Helen M	Client Purchase Order #

Requested Analysis: 8260 Full List / 624 / TPH as Gasoline; 8260Petro (includes BTEX / MtBE / TBA / EtBE / DIPE / TAME / 1,2-DCA / EDB) / TPH as Gas; 8270 / 625 / +TICs / PAHs only; TPH-Extractable - Diesel - Motor Oil - Other With Silica Gel Cleanup; METALS: CAM-17 / LUFT-5 / RCRA-8 / PPM-13; Pesticides-8081 / PCBs-8082 (circled) / 608; BTEX-MtBE-TPH as Gasoline by GC/PID-FID

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Accutest Sample ID #	Sample ID / Field Point / Point of Collection (LRTO)	Date	Time	Sampled by	Matrix	# of bottles	Preserved: NONE	PCBs-8082	LAB USE ONLY
SW-3	-1	11/19/09	13:45	HM	H2O	2	X	X	
SW-4	-2		1402			2	X	X	Analyze
SW-5	-3		1420			2	X	X	Discrete
~~SW-6 NOT SAMPLED~~							X	X	
SW-7	-4		1415?			2	X	X	

Turnaround Time (Business days): Standard TAT 15 Business Days; 10 Day (Workload dependent); [X] 5 Day (Workload dependent) Routine; 3 Day (125% markup); 2 Day (150% markup); 1 Day (200% markup); Same Day (300% markup)
Approved By:/ Date:
Emergency T/A data available VIA Lablink

Data Deliverable Information: Commercial "A" - Results only; [X] Commercial "B" - Results with QC summaries; Commercial "B+" - Results, QC, and chromatograms; FULT1 - Level 4 data package; EDF for Geotracker; EDD Format; Provide EDF Global ID; Provide EDF Logcode:

Comments / Remarks: 2Lit Ambers each N/P. (x4)

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	11-19-09 1504	1 ETS Fridge HM	2 [signature]	11/19/09 1504	2
3 [signature]	11-20-09 1355	3 [signature]	4 [signature]	11/19/09 15:00	4 [signature]
5		5	Custody Seal #	Appropriate Bottle / Pres. (Y) N; Labels match COC (Y) N	Headspace Y/N N/A; On Ice (Y)N; Separate Receipt Log Y/N; 1.9 / 0.4 = 2.3°C Cooler Temp.

C8537: Chain of Custody
Page 1 of 1

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C8537
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1528-MB	OO7844.D	1	11/30/09	NB	11/23/09	OP1528	GOO289

The QC reported here applies to the following samples: Method: SW846 8081A

C8537-1, C8537-2, C8537-3, C8537-4

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.025	ug/l	
319-84-6	alpha-BHC	ND	0.025	ug/l	
319-85-7	beta-BHC	ND	0.025	ug/l	
319-86-8	delta-BHC	ND	0.025	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.025	ug/l	
12789-03-6	Chlordane	ND	0.20	ug/l	
60-57-1	Dieldrin	ND	0.025	ug/l	
72-54-8	4,4'-DDD	ND	0.025	ug/l	
72-55-9	4,4'-DDE	ND	0.025	ug/l	
50-29-3	4,4'-DDT	ND	0.025	ug/l	
72-20-8	Endrin	ND	0.025	ug/l	
7421-93-4	Endrin aldehyde	ND	0.025	ug/l	
959-98-8	Endosulfan-I	ND	0.025	ug/l	
33213-65-9	Endosulfan-II	ND	0.025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.025	ug/l	
76-44-8	Heptachlor	ND	0.025	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.025	ug/l	
72-43-5	Methoxychlor	ND	0.025	ug/l	
8001-35-2	Toxaphene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	52%	44-140%
877-09-8	Tetrachloro-m-xylene	57%	44-140%
2051-24-3	Decachlorobiphenyl	68%	44-140%
2051-24-3	Decachlorobiphenyl	75%	44-140%

Method Blank Summary

Job Number: C8537
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1529-MB	PP6614.D	1	11/24/09	NB	11/23/09	OP1529	GPP269

The QC reported here applies to the following samples: **Method:** SW846 8082

C8537-1, C8537-2, C8537-3, C8537-4

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	0.022	0.10	ug/l	J
11104-28-2	Aroclor 1221	ND	0.10	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	63%	41-134%
2051-24-3	Decachlorobiphenyl	83%	41-134%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C8537
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1528-BS	OO7845.D	1	11/30/09	NB	11/23/09	OP1528	GOO289
OP1528-BSD	OO7846.D	1	11/30/09	NB	11/23/09	OP1528	GOO289

The QC reported here applies to the following samples: **Method:** SW846 8081A

C8537-1, C8537-2, C8537-3, C8537-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.1	0.078	78	0.080	80	3	35-130/30
319-84-6	alpha-BHC	0.1	0.081	81	0.082	82	1	35-130/30
319-85-7	beta-BHC	0.1	0.079	79	0.080	80	1	35-130/30
319-86-8	delta-BHC	0.1	0.084	84	0.085	85	1	35-130/30
58-89-9	gamma-BHC (Lindane)	0.1	0.085	85	0.086	86	1	35-130/30
60-57-1	Dieldrin	0.1	0.090	90	0.090	90	0	35-130/30
72-54-8	4,4'-DDD	0.1	0.090	90	0.093	93	3	35-130/30
72-55-9	4,4'-DDE	0.1	0.080	80	0.083	83	4	35-130/30
50-29-3	4,4'-DDT	0.1	0.089	89	0.096	96	8	35-130/30
72-20-8	Endrin	0.1	0.084	84	0.087	87	4	35-130/30
7421-93-4	Endrin aldehyde	0.1	0.083	83	0.091	91	9	35-130/30
959-98-8	Endosulfan-I	0.1	0.083	83	0.085	85	2	35-130/30
33213-65-9	Endosulfan-II	0.1	0.078	78	0.081	81	4	35-130/30
1031-07-8	Endosulfan sulfate	0.1	0.083	83	0.088	88	6	35-130/30
76-44-8	Heptachlor	0.1	0.092	92	0.095	95	3	35-130/30
1024-57-3	Heptachlor epoxide	0.1	0.087	87	0.087	87	0	35-130/30
72-43-5	Methoxychlor	0.1	0.097	97	0.10	100	3	35-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	60%	59%	44-140%
877-09-8	Tetrachloro-m-xylene	65%	64%	44-140%
2051-24-3	Decachlorobiphenyl	72%	77%	44-140%
2051-24-3	Decachlorobiphenyl	82%	86%	44-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C8537
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1529-BS	PP6615.D	1	11/24/09	NB	11/23/09	OP1529	GPP269
OP1529-BSD	PP6616.D	1	11/24/09	NB	11/23/09	OP1529	GPP269

The QC reported here applies to the following samples: Method: SW846 8082

C8537-1, C8537-2, C8537-3, C8537-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	0.4	0.28	70	0.31	78	10	40-140/30
11096-82-5	Aroclor 1260	0.4	0.32	80	0.34	85	6	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	76%	71%	41-134%
2051-24-3	Decachlorobiphenyl	81%	89%	41-134%

Laboratory Analytical Reports
Chain of Custodies

December 3, 2009

Northern California
ACCUTEST.
Laboratories

12/14/09

Technical Report for

ETS-Environmental Technical Services

LRT,402 Wright Avenue,Richmond,CA

LRT Discharge 1209-3 (PO#:TL19772)

Accutest Job Number: C8695X

Sampling Date: 12/03/09

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report:

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Sample Summary

ETS-Environmental Technical Services

Job No: C8695X

LRT,402 Wright Avenue,Richmond,CA
Project No: LRT Discharge 1209-3 (PO#:TL19772)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C8695-1X	12/03/09	14:02	HM	12/04/09	AQ	Water	LRTO SW(3-7)FIELD COMP

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA " ETSCAST961 "

C8695

4.4

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346
CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:

PO No. TL 19 772
Project No./Name
LRT DISCHARGE
1209-3

TURNAROUND TIME: Rush

SAMPLER: Troy Foster, Helen Mawhinney

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
		LRTO SW(3-7) Field comp								
**LRTO SW-3 through SW-7 SW-3 SW-4 SW-5, SW-6, SW-7	12/3/09	14:02	-1					X		Field Comp
*LRTO SW-3, SW4, SW-5, SW-6, SW-7										
*LTRO SW-3										LRTO SW-3 through SW-7 lab comp.
*LRTO SW-4										
*LRTO SW-5										
*LRTO SW-6										
*LRTO SW-7										

LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses * Accutest, please use your detection limts when lower

Relinquished By:
Helen Mawhinney Helen Mawhinney 14:02 12-3-09
print signature date/time

Received By:
FedEx'd to Alpha Labs in sealed container
print signature date/time

Relinquished By:
print signature date/time

Received By:
Holly Phillips Holly Phillips 12/4/09 11:35
print signature date/time

Samples shipped to Alpha Analytical By the Client via FedEx 12/03/09 ~~@ 14:02~~ (ET)

Elvin kumar 12/4/09 11:52

Accutest Laboratories Northern California
Sample Receiving Check List

Job#: C8695
Sample Control Rep. Initial: EK

ETSCASJ961

Review Chain of Custody Chain of Custody is to be complete and legible.

☑ Are these regulatory (NPDES) samples? CWA — Yes / (No)
☑ Is pH requested? — Yes / (No)
☐ Was Client informed that hold time is 15 min? — Yes / No
If yes, did Client consent to continue? N/A
☑ Are sample within hold time? — (Yes) / No
Are sample in danger of exceeding hold-time' BOD - 48 hours hold time — (Yes) / No
☑ Existing Client? (Yes) / No Existing Project? — (Yes) / No
If No: Is Report to info complete and legible, including;
☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
Is Bill to info complete and legible, including;
☐ PO# ☐ Credit card ☐ Contact ☐ address ☐ phone ☐ e-mail
Is Contact and/or Project Manager identified, including;
☐ phone ☐ e-mail
☑ Project name / number ☐ ~~Special requirements~~? — (Yes) / No
☑ Sample IDs / date & time of collection provided? — (Yes) / No
☑ Is Matrix listed and correct? BOD - Subbed to Alpha. — (Yes) / No
☑ Analyses listed we do or client has authorized a subcontract? — (Yes) / No
☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
☑ TAT requested available? (Yes) / No Approved by EK

Review Coolers: N/A Sample shipped directly to the sub-lab by the Client.
☑ Were Coolers temperatures measured at ≤6°C? Cooler # — Temp — °C
- If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
- Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)

☐ Shipment Received Method —
☐ Custody Seals: N/A Present: Yes / No If Yes; Unbroken: Yes / No

Review of Sample Bottles: If you answer no, explain to the side N/A
☐ Chain matches bottle labels? Yes / No ☐ Sample bottle intact? Yes / No
☐ Is there enough sample volume in proper bottle for requested analyses? Yes / No
☐ Proper Preservatives? Yes / No Check pH on preserved samples except 1664, 625, 8270 and VOAs.
☐ Headspace-VOAs? **Greater than 6mm in diameter Yes / No**
List sample ID and affected container

Client Sample ID	pH Check	Other Comments/~~Issues~~
		BOD Sample shipped directly to the sub-lab (ALPHA) by the Client via FedEx.

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

ELAP Certificate Numbers 1551 and 2728

14 December 2009

Accutest Northern California, Inc.
Attn: Diane Theesen
2105 Lundy Avenue
San Jose, CA 95131
RE: LRT- Richmond, CA
Work Order: 09L0258

Enclosed are the results of analyses for samples received by the laboratory on 12/04/09 11:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sean Foley For Robbie C. Phillips
Project Manager

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/14/09 10:16
Project No: C8695-1
Project ID: LRT- Richmond, CA

C er Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0258	12/04/2009 11:35	ACCUTEST	

ANALYTICAL REPORT FOR SAMPLES

mple ID	Laboratory ID	Matrix	Date Sampled	Date Received
C8695-1 LRTO SW(3-7) Field Comp	09L0258-01	Water	12/03/09 14:02	12/04/09 11:35

Bruce Gove
Laboratory Director

12/14/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/14/09 10:16
Project No: C8695-1
Project ID: LRT- Richmond, CA

C er Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0258	12/04/2009 11:35	ACCUTEST	

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
:F 95-1 LRTO SW(3-7) Field Comp (09L0258-01)			**Sample Type: Water**			**Sampled: 12/03/09 14:02**		
(ventional Chemistry Parameters by APHA/EPA Methods								
Biochemical Oxygen Demand	SM5210B	AL90422	12/04/09 16:00	12/09/09 14:42	1	ND mg/l	5.0	

he results in this report apply to the samples analyzed in accordance with the chain r stody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

12/14/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/14/09 10:16
Project No: C8695-1
Project ID: LRT- Richmond, CA

ler Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0258	12/04/2009 11:35	ACCUTEST	

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

alyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AL90422 - General Preparation										
I nk (AL90422-BLK1)				Prepared: 12/04/09 Analyzed: 12/09/09						
Biochemical Oxygen Demand	ND	5.0	mg/l							
I nk (AL90422-BLK2)				Prepared: 12/04/09 Analyzed: 12/09/09						
E chemical Oxygen Demand	ND	5.0	mg/l							
LCS (AL90422-BS1)				Prepared: 12/04/09 Analyzed: 12/09/09						
E chemical Oxygen Demand	176	5.0	mg/l	200		88.0	80-120			
LCS Dup (AL90422-BSD1)				Prepared: 12/04/09 Analyzed: 12/09/09						
B chemical Oxygen Demand	164	5.0	mg/l	200		82.0	80-120	7.06	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

12/14/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/14/09 10:16
Project No: C8695-1
Project ID: LRT- Richmond, CA

ler Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0258	12/04/2009 11:35	ACCUTEST	

otes and Definitions

DET	Analyte DETECTED
)	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
/	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
)L	Practical Quantitation Limit

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C er Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0258	12/04/2009 11:35	ACCUTEST	

Items for Project Manager Review

l Number	Analysis	Analyte	Exception
			Default Report (not modified)
			VERSION 5.8.5:2709

Northern California ACCUTEST Laboratories

Revised COC
12-14-09
@0950

09L0258

Accutest ID and PO#: C8695

2105 Lundy Avenue, San Jose, CA 95131 Phone :(408)588-0200 Fax: (408)588-0201

Subcontract Chain of Custody

Please revise Lab Error ERROR DThuesen

Subcontract Lab: Alpha Analytical
Date Sent: 12/03/09
Date Due: 5 Day TAT

5 Day TAT

temp 4.4

Project Name: ~~ANG~~ LRT
Project Location: ~~Hayward, CA~~ Richmond, CA

Accutest Lab Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time
C8695-1	LRTO SW(3-7) FIELD COMP	Wastewater	BOD	12/03/09	14:02

Comments: Samples shipped via FedEx By the client, 12/03/09

Relinquished By:	Received By:	Date:	Time:
ekumar	Patty Phillips	12-4-09	1135
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

Send the Report to: dianet@accutest.com

Laboratory Analytical Reports
Chain of Custodies

December 10, 2009

Northern California ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

12/21/09

Technical Report for

ETS-Environmental Technical Services

City of Richmond Discharge Samples,Richmond,CA

LRT DISCHARGE (PO#:TL19775)

Accutest Job Number: C8805

Sampling Date: 12/10/09

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report: 25

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6

Table of Contents

-1-

Sample Summary

ETS-Environmental Technical Services

Job No: C8805

City of Richmond Discharge Samples,Richmond,CA
Project No: LRT DISCHARGE (PO#:TL19775)

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
C8805-1	12/10/09	19:29 HM	12/11/09	AQ	Water	LRTO SW(1-7)FIELD COMP
C8805-2	12/10/09	19:29 HM	12/11/09	AQ	Water	LRTO SW(1-7)LAB COMP

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO SW(1-7)FIELD COMP		
Lab Sample ID:	C8805-1	**Date Sampled:**	12/10/09
Matrix:	AQ - Water	**Date Received:**	12/11/09
		Percent Solids:	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Copper	15.2	5.0	ug/l	1	12/15/09	12/15/09	CT	EPA 200.7 [1]	EPA 200.7 [2]
Lead	15.5	5.0	ug/l	1	12/15/09	12/15/09	CT	EPA 200.7 [1]	EPA 200.7 [2]
Nickel	5.0	5.0	ug/l	1	12/15/09	12/15/09	CT	EPA 200.7 [1]	EPA 200.7 [2]
Zinc	113	10	ug/l	1	12/15/09	12/15/09	CT	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA999
(2) Prep QC Batch: MP1911

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO SW(1-7)FIELD COMP		
Lab Sample ID:	C8805-1	**Date Sampled:**	12/10/09
Matrix:	AQ - Water	**Date Received:**	12/11/09
		Percent Solids:	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Oil and Grease	< 5.0	5.0	mg/l	1	12/21/09	MF	EPA 1664A
Solids, Total Suspended	56.0	5.0	mg/l	1	12/14/09	MF	SM18 2540D
Specific Conductivity	6230	1.0	umhos/cm	1	12/16/09	MF	SM18 2510B/EPA 120.1

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO SW(1-7)LAB COMP		
Lab Sample ID:	C8805-2	**Date Sampled:**	12/10/09
Matrix:	AQ - Water	**Date Received:**	12/11/09
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ9807.D	1	12/14/09	JA	n/a	n/a	GJJ384
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	130%		65-135%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- **Chain of Custody**

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA "ETSCASJ538" C8805

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346

CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services

1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:

PO No.
TL19775
Project No./Name
LRT DISCHARGE

BOD was FedEx'd to ALPHA Labs under separate C of C-same composite sample same PO No.

TURNAROUND TIME: 5 Day/Same as SW-1 & SW-2 BOD

SAMPLER: HELEN MAWHINNEY

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	Copper, Lead, Nickel, zinc TTLC METALS	NOTE:
	12/10/09	1929							CU PB Ni ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***	(3)			<0.6 mg/L	1.0 µmhos/c	<1.0 mg/L	5.0 mg/L	0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
250mL poly NP / 250mL poly (w/HNO3) / 1Lit. Amber (w/H2SO4) **LRTO SW-1 through SW-7 PHC2	LRTO SW(1-7) Field Comp (-1)			X	X		X	*See Note	X	Field Comp
*LRTO SW-1, SW-2, SW-3, SW4, SW-5, SW-6, SW-7	LRTO SW(1-7) LAB comp. (-2)					X				
*LRTO SW-1	+ vials each (w/HCl)									
*LTRO SW-2	↓									
*LTRO SW-3										LRTO SW-1
*LRTO SW-4										through
*LRTO SW-5										SW-7
*LRTO SW-6										lab comp.
*LRTO SW-7	↓									(7:1 Comp)

*LRTO SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 are to be composited in the lab as one sample for analyses for BTEX
LRTO SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses * Accutest, please use your detection limits when lower

Relinquished By: Helen Mawhinney [signature] 12-10-09 1929 (print / signature / date/time)
Received By: ETS FRIDGE [signature] 12-10-09 1934 (print / signature / date/time)

Temp | 5.6-0.4=5.2°C

Relinquished By: [signature] 12-11-09 Relinquished / Date/Time
Received By: [signature] Lab 12/11/09 1420 Date Time 12/11/09 @ 15:18

C8805: Chain of Custody
Page 1 of 2

Accutest Laboratories Northern California
Sample Receiving Check List

Job#: C 8805
Sample Control Rep. Initial: EK

ETSCASJ538

Review Chain of Custody Chain of Custody is to be complete and legible.

- ☑ Are these regulatory (NPDES) samples? CWA — (Yes) / No
- ☑ Is pH requested? — Yes / (No)
  - ☐ Was Client informed that hold time is 15 min? — Yes / No
  - If yes, did Client consent to continue? N/A
- ☑ Are sample within hold time? — (Yes) / No
  - Are sample in danger of exceeding hold-time — Yes / (No)
- ☑ Existing Client? (Yes) / No — Existing Project? (Yes) / No
  - If No: Is Report to info complete and legible, including;
    - ☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
  - Is Bill to info complete and legible, including;
    - ☐ PO# ☐ Credit card ☐ Contact ☐ address ☐ phone ☐ e-mail
  - Is Contact and/or Project Manager identified, including;
    - ☐ phone ☐ e-mail
- ☑ Project name / number ☐ Special requirements? — (Yes) / No
- ☑ Sample IDs / date & time of collection provided? — (Yes) / No
- ☑ Is Matrix listed and correct? — (Yes) / No
- ☑ Analyses listed we do or client has authorized a subcontract? — (Yes) / No
- ☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
- ☑ TAT requested available? (Yes) / No — Approved by EK

Review Coolers:

- ☑ Were Coolers temperatures measured at ≤6°C? Cooler # 1 Temp 5.2°C
  - If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
  - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- ☑ Shipment Received Method AC
- ☑ Custody Seals: Present: Yes / (No) — If Yes; Unbroken: Yes / No

Review of Sample Bottles: If you answer no, explain to the side

- ☑ Chain matches bottle labels? (Yes) / No — ☑ Sample bottle intact? (Yes) / No
- ☑ Is there enough sample volume in proper bottle for requested analyses? (Yes) / No
- ☑ Proper Preservatives? (Yes) / No — Check pH on preserved samples except 1664, 625, 8270 and VOAs.
- ☑ Headspace-VOAs? Greater than 6mm in diameter Yes / (No)
  - List sample ID and affected container

Client Sample ID	pH Check	Other Comments/Issues
-1	pH<2 ✓	250ml poly (w/HNO3) 200.7-MET
-2		trials each 60/ (AQ) (x7)
		* (7:1) composite for BTEX (8021)

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\anc-srv-file1\Entech-Data\Laboratory\Sample_Control\Form_Sample Receipt Checklist_Rev0.doc

C8805: Chain of Custody
Page 2 of 2

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: C8805
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ384-MB	JJ9804.D	1	12/14/09	JA	n/a	n/a	GJJ384

The QC reported here applies to the following samples: Method: SW846 8021B

C8805-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	122%	65-135%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C8805
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ384-BS	JJ9805.D	1	12/14/09	JA	n/a	n/a	GJJ384
GJJ384-BSD	JJ9806.D	1	12/14/09	JA	n/a	n/a	GJJ384

The QC reported here applies to the following samples: **Method:** SW846 8021B

C8805-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5	4.7	94	4.7	94	0	65-135/30
100-41-4	Ethylbenzene	5	4.7	94	4.7	94	0	65-135/30
108-88-3	Toluene	5	4.8	96	4.9	98	2	65-135/30
1330-20-7	Xylenes (total)	15	13.9	93	13.7	91	1	65-135/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	119%	115%	65-135%

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Matrix Spike and Duplicate Summaries**
- **Blank Spike and Lab Control Sample Summaries**
- **Serial Dilution Summaries**

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1911
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 12/15/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	14	21		
Antimony	10	6.9	5.3		
Arsenic	10	4.4	3.1		
Barium	5.0	.6	.7		
Beryllium	5.0	.1	.2		
Boron	50	8.6	11		
Cadmium	2.0	.3	.3		
Calcium	50	29	12		
Chromium	5.0	.4	.6		
Cobalt	5.0	.4	.4		
Copper	5.0	.8	1.1	-0.70	<5.0
Iron	50	2.6	18		
Lead	5.0	3.3	1.3	2.1	<5.0
Lithium	10	2.2	2.5		
Magnesium	50	9.6	13		
Manganese	5.0	.1	.2		
Molybdenum	5.0	1.3	1		
Nickel	5.0	.8	.5	0.20	<5.0
Potassium	500	58	60		
Selenium	20	14	12		
Silicon	50	3.4	5.3		
Silver	5.0	.9	.7		
Sodium	100	15	13		
Strontium	10	.3	2.4		
Thallium	20	6.5	6.4		
Tin	50	2.3	2		
Titanium	2.0	.2	.2		
Vanadium	5.0	.7	.5		
Zinc	10	.9	1.1	0.70	<10

Associated samples MP1911: C8805-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1911
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 12/15/09

Metal	C8745-1 Original	MS	Spikelot MPIR1	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron	anr				
Cadmium	anr				
Calcium	anr				
Chromium	anr				
Cobalt	anr				
Copper	59.8	545	500	97.0	70-130
Iron	anr				
Lead	3.8	516	500	102.4	70-130
Lithium					
Magnesium	anr				
Manganese					
Molybdenum	anr				
Nickel	4.5	512	500	101.5	70-130
Potassium	anr				
Selenium	anr				
Silicon					
Silver	anr				
Sodium	anr				
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	277	780	500	100.6	70-130

Associated samples MP1911: C8805-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1911
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 12/15/09

Metal	C8745-1 Original	MSD	Spikelot MPIR1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	59.8	549	500	97.8	0.7	20
Iron	anr					
Lead	3.8	524	500	104.0	1.5	20
Lithium						
Magnesium	anr					
Manganese						
Molybdenum	anr					
Nickel	4.5	513	500	101.7	0.2	20
Potassium	anr					
Selenium	anr					
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	277	783	500	101.2	0.4	20

Associated samples MP1911: C8805-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1911
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date:		12/15/09				12/15/09			
Metal	BSP Result	Spikelot MPIR1	% Rec	QC Limits	BSD Result	Spikelot MPIR1	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	479	500	95.8	85-115	479	500	95.8	0.0	
Iron	anr								
Lead	504	500	100.8	85-115	490	500	98.0	2.8	
Lithium									
Magnesium	anr								
Manganese									
Molybdenum	anr								
Nickel	496	500	99.2	85-115	484	500	96.8	2.4	
Potassium	anr								
Selenium	anr								
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	490	500	98.0	85-115	478	500	95.6	2.5	

Associated samples MP1911: C8805-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1911
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 12/15/09

Metal	C8745-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	59.8	63.0	5.4	0-10
Iron	anr			
Lead	3.80	0.00	100.0(a)	0-10
Lithium				
Magnesium	anr			
Manganese				
Molybdenum	anr			
Nickel	4.50	0.00	100.0(a)	0-10
Potassium	anr			
Selenium	anr			
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	277	279	0.7	0-10

Associated samples MP1911: C8805-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP1911
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 12/15/09

Metal	Sample ml	Final ml	C8745-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP1911: C8805-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

General Chemistry

6

QC Data Summaries

Includes the following where applicable:

- **Method Blank and Blank Spike Summaries**
- **Duplicate Summaries**
- **Matrix Spike Summaries**

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
HEM Oil and Grease	GP1299/GN2918	5.0	0.0	mg/l	40	38.6	96.5	78-114%
Solids, Total Suspended	GN2879	5.0	0.0	mg/l				
Specific Conductivity	GN2887	1.0	0.0	umhos/cm				

Associated Samples:
Batch GN2879: C8805-1
Batch GN2887: C8805-1
Batch GP1299: C8805-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP1299/GN2918	mg/l	40	37.8	2.1	18%

Associated Samples:
Batch GP1299: C8805-1
(*) Outside of QC limits

6.2
6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Suspended	GN2879	C8762-9	mg/l	0.0	0.0	0.0	0-25%
Specific Conductivity	GN2887	C8808-1	umhos/cm	474	464	2.1	0-25%

Associated Samples:
Batch GN2879: C8805-1
Batch GN2887: C8805-1
(*) Outside of QC limits

6.3
6

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C8805
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
HEM Oil and Grease	GP1299/GN2918	C8858-1	mg/l	0.0	40	17.8	44.5N(a)	78-114%

Associated Samples:
Batch GP1299: C8805-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery outside of acceptable QC criteria due to matrix inteference. However, BS/BSD are within the control limit.

6.4
6

Northern California
ACCUTEST
Laboratories

12/21/09

Technical Report for

ETS-Environmental Technical Services

City of Richmond Discharge Samples,Richmond,CA

LRT DISCHARGE (PO#:TL19775)

Accutest Job Number: C8796X

Sampling Date: 12/10/09

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report:

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Accutest Laboratories

Sample Summary

ETS-Environmental Technical Services

Job No: C8796X

City of Richmond Discharge Samples, Richmond, CA
Project No: LRT DISCHARGE (PO#:TL19775)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C8796-1X	12/10/09	13:32	HM	12/11/09	AQ	Water	LRTO SW(1-2)FIELD COMP

4-2

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA

"ETSCASJ538" 09L0568 C8796

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346

CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO: _____

PO No.
TL19775
Project No./Name
LRT DISCHARGE

TURNAROUND TIME: 5 day

SAMPLER: _____

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-1 through SW-2	12/10	—	(1)					X		*Field Comp*
										LRTO SW-1
										through
										SW-2
										lab comp.

**LRTO SW-1, SW-2 were composited in the field as one sample for analyses

*** Accutest, please use your detection limts when lower than RPLs listed above

Relinquished By: Helen Mawhinney (print) Helen Mawhinney (signature) 1332 12-10-09 (date/time)

Received By: Fed Ex (print) package sealed on ice/overnite (signature) 12/10/09 (date/time)

Relinquished By: (print) (signature) (date/time)

Received By: Sandelin (print) Sandelin (signature) 12/11/09 1045 (date/time)

* Sample shipped directly to Alpha-Labs by the client on 12/10/09 ed

Accutest Laboratories Northern California
Sample Receiving Check List

Job# : C B796
Sample Control Rep. Initial: EK

ETSCAST538

Review Chain of Custody **Chain of Custody is to be complete and legible.**

- ☑ Are these regulatory (NPDES) samples? CWA — Yes / (No)
- ☑ Is pH requested? — Yes / (No)
  - ☐ Was Client informed that hold time is 15 min? — Yes / No
  - If yes, did Client consent to continue? N/A
- ☑ Are sample within hold time? — (Yes) / No
  - Are sample in danger of exceeding hold-time BOD - 48hours. — (Yes) / No
- ☑ Existing Client? (Yes) / No — Existing Project? — (Yes) / No
  - If No: Is Report to info complete and legible, including;
    - ☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
    - Is Bill to info complete and legible, including;
    - ☐ PO# ☐ Credit card ☐ Contact ☐address ☐ phone ☐ e-mail
    - Is Contact and/or Project Manager identified, including;
    - ☐ phone ☐ e-mail
- ☑ Project name / number ☐ ~~Special requirements?~~ — (Yes) / No
- ☑ Sample IDs / date & time of collection provided? — (Yes) / No
- ☑ Is Matrix listed and correct? — (Yes) / No
- ☑ Analyses listed we do or client has authorized a subcontract? BOD - subbed to Alpha. — (Yes) / No
- ☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
- ☑ TAT requested available? (Yes) / No — Approved by EK

Review Coolers: Sample shipped directly to the Sub-Lab by the Client.

- ☑ Were Coolers temperatures measured at ≤6°C? Cooler # — Temp — °C
  - •If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
  - • Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- ☑ Shipment Received Method N/A
- ☐ Custody Seals: N/A Present: **Yes / No** If Yes; Unbroken: **Yes / No**

Review of Sample Bottles: If you answer no, explain to the side

- N/A ☐ Chain matches bottle labels? **Yes / No** ☐ Sample bottle intact? **Yes / No**
- N/A ☐ Is there enough sample volume in proper bottle for requested analyses? **Yes / No**
- N/A ☐ Proper Preservatives? **Yes / No** Check pH on preserved samples except 1664, 625, 8270 and VOAs.
- N/A ☐ Headspace-VOAs? **Greater than 6mm in diameter Yes / No**
  List sample ID and affected container

Client Sample ID	pH Check	Other Comments/~~Issues~~
		Sample shipped to Alpha Labs via FedEx by the Client 12/10/09 (EK)
		* Sub Chain generated and emailed to Alpha-Labs.

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

Subcontract Data

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

ELAP Certificate Numbers 1551 and 2728

18 December 2009

Accutest Northern California, Inc.
Attn: Diane Theesen
2105 Lundy Avenue
San Jose, CA 95131
RE: LRT-Discharge
Work Order: 09L0568

Enclosed are the results of analyses for samples received by the laboratory on 12/11/09 10:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chelsea L. Sandelin For Robbie C. Phillips
Project Manager

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/18/09 08:30
Project No: C8796
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0568	12/11/2009 10:45	ACCUTEST	TL19775

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C8796-1 LRTO SW(1-2) Field Comp	09L0568-01	Water	12/10/09 13:32	12/11/09 10:45

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

12/18/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/18/09 08:30
Project No: C8796
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0568	12/11/2009 10:45	ACCUTEST	TL19775

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
C8796-1 LRTO SW(1-2) Field Comp (09L0568-01)		**Sample Type: Water**			**Sampled: 12/10/09 13:32**			
Conventional Chemistry Parameters by APHA/EPA Methods								
Biochemical Oxygen Demand	SM5210B	AL91106	12/11/09 15:00	12/17/09 15:17	1	ND mg/l	5.0	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

12/18/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/18/09 08:30
Project No: C8796
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0568	12/11/2009 10:45	ACCUTEST	TL19775

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AL91106 - General Preparation										
Blank (AL91106-BLK1)				Prepared: 12/11/09 Analyzed: 12/17/09						
Biochemical Oxygen Demand	ND	5.0	mg/l							
Blank (AL91106-BLK2)				Prepared: 12/11/09 Analyzed: 12/17/09						
Biochemical Oxygen Demand	ND	5.0	mg/l							
LCS (AL91106-BS1)				Prepared: 12/11/09 Analyzed: 12/17/09						
Biochemical Oxygen Demand	167	5.0	mg/l	200		83.5	80-120			
LCS Dup (AL91106-BSD1)				Prepared: 12/11/09 Analyzed: 12/17/09						
Biochemical Oxygen Demand	167	5.0	mg/l	200		83.5	80-120	0.00	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

12/18/2009

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 12/18/09 08:30
Project No: C8796
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
09L0568	12/11/2009 10:45	ACCUTEST	TL19775

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
PQL	Practical Quantitation Limit

4.2

09L0568

Northern California ACCUTEST Laboratories

Accutest ID and PO#: C8796

2105 Lundy Avenue, San Jose, CA 95131 Phone :(408)588-0200 Fax: (408)588-0201

Subcontract Chain of Custody

Subcontract Lab: Alpha Analytical
Date Sent: 12/10/09
Date Due: 5 Day TAT

~~5~~ Day TAT

Project Name: LRT Discharge
Project Location: Richmond, CA

Accutest Lab Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time
C8796-1	LRTO SW(1-2) FIELD COMP	Wastewater	BOD	12/10/09	13:32

Comments: Samples shipped via FedEx By the client, 12/10/09

Relinquished By:		Received By:	Date:	Time:
ekumar		C Sandell	12/11/09	1045
Relinquished By:		Received By:	Date:	Time:
Relinquished By:		Received By:	Date:	Time:

Send the Report to: dianet@accutest.com

4.2

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA

09L0568

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED

ELAP No. 2346

CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:

PO No.
TL19775
Project No./Name
~~LRT DISCHARGE~~

TURNAROUND TIME: 5 day

SAMPLER:

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-1 through SW-2	12/10	—						X		Field Comp
										LRTO SW-1 through SW-2 lab comp.

**LRTO SW-1, SW-2 were composited in the field as one sample for analyses

*** Accutest, please use your detection limts when lower than RPLs listed above

Relinquished By: Helen Mawhinney (print) Helen Mawhinney (signature) 1332 12-10-09 (date/time)

Received By: Fed Ex (print) package sealed on Ice/overnite (signature) 12/10/09 (date/time)

Relinquished By: (print) (signature) (date/time)

Received By: Sandelin (print) Sandelin (signature) 12/11/09 1045 (date/time)

Laboratory Analytical Reports
Chain of Custodies

February 8, 2010

Northern California
ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

02/18/10

Technical Report for

ETS-Environmental Technical Services

City of Richmond Discharge Samples,Richmond,CA

LRT DISCHARGE (TL19816)

Accutest Job Number: C9773

Sampling Date: 02/08/10

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report: **26**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Table of Contents

-1-

Sections: 1 2 3 4 5 6

Sample Summary

ETS-Environmental Technical Services

Job No: C9773

City of Richmond Discharge Samples,Richmond,CA
Project No: LRT DISCHARGE (TL19816)

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C9773-1	02/08/10	19:10 HM	02/11/10	AQ	Water	LRTO SW(1-7)FIELD COMP
C9773-2	02/08/10	19:10 HM	02/11/10	AQ	Water	LRTO SW(1-7)LAB COMP

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO SW(1-7)FIELD COMP		
Lab Sample ID:	C9773-1	**Date Sampled:**	02/08/10
Matrix:	AQ - Water	**Date Received:**	02/11/10
		Percent Solids:	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Copper	< 5.0	5.0	ug/l	1	02/12/10	02/13/10	CT	EPA 200.7 [1]	EPA 200.7 [2]
Lead	< 5.0	5.0	ug/l	1	02/12/10	02/13/10	CT	EPA 200.7 [1]	EPA 200.7 [2]
Nickel	< 5.0	5.0	ug/l	1	02/12/10	02/13/10	CT	EPA 200.7 [1]	EPA 200.7 [2]
Zinc	69.9	10	ug/l	1	02/12/10	02/13/10	CT	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA1082
(2) Prep QC Batch: MP2093

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO SW(1-7)FIELD COMP		
Lab Sample ID:	C9773-1	**Date Sampled:**	02/08/10
Matrix:	AQ - Water	**Date Received:**	02/11/10
		Percent Solids:	n/a
Project:	City of Richmond Discharge Samples,Richmond,CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Oil and Grease	< 5.0	5.0	mg/l	1	02/18/10	RL	EPA 1664A
Solids, Total Suspended	5.0	5.0	mg/l	1	02/15/10	MF	SM18 2540D
Specific Conductivity	841	1.0	umhos/cm	1	02/12/10	PH	SM18 2510B/EPA 120.1

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO SW(1-7)LAB COMP		
Lab Sample ID:	C9773-2	**Date Sampled:**	02/08/10
Matrix:	AQ - Water	**Date Received:**	02/11/10
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	City of Richmond Discharge Samples, Richmond, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ10787.D	1	02/16/10	JA	n/a	n/a	GJJ418
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		65-135%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA "ETSCASJ538" C9773

ACCUTEST ANALYTICAL LABS, INC. **CHAIN OF CUSTODY/ANALYSES REQUESTED**

3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201 ELAP No. 2346

CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services

1548 Jacob Avenue
San Jose, California 95118

PO No. TL 19816
Project No./Name
LRT DISCHARGE

BOD was FedEx'd to ALPHA Labs under separate C of C-same composite sample same PO No.

TURNAROUND TIME: 5 Day/Same as BOD due day

ACCUTEST ORDER NO: SAMPLER: HELEN MAWHINNEY

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB NI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<0.6 mg/L	1.0 µmhos/c	<1.0 mg/L	5.0 mg/L	0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-1 through SW-7	LRTO	SW(1-7)	Field Comp	-1 #9 X	X		X	*See Note	X	*Field Comp*
*LRTO SW-1, SW-2, SW-3, SW4, SW-5, SW-6, SW-7	LRTO	SW(1-7)	Lab Comp	-2 #7		X				
*LRTO SW-1										
*LTRO SW-2										
*LTRO SW-3										LRTO SW-1
*LRTO SW-4										*through*
*LRTO SW-5										*SW-7*
*LRTO SW-6										lab comp.
*LRTO SW-7										

*LRTO SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 are to be composited in the lab as one sample for analyses for BTEX
LRTO SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses * Accutest, please use your detection limits when lower

250mL poly NP
250mL poly (w/HNO3) PH<2
1 Lit Amber (w/H2SO4)
4 Lit Amber NP (Extra)
Temp | 2.8-0.2 = 2.6°C
1 vial each (w/HCL) (x4)

Relinquished By: [signature] 2-8-10 1910 Received By: ETS Fridge 2-8-10 1910
print / signature / date/time
Relinquished By: [signature] 2-11-10 Received By: [signature] 2/11/10 1400
2/11/10 14:39

C9773: Chain of Custody
Page 1 of 2

Accutest Laboratories Northern California
Sample Receiving Check List

Job#: C9773
Sample Control Rep. Initial: EK

ETCASJ538

Review Chain of Custody Chain of Custody is to be complete and legible.

- ☑ Are these regulatory (~~NPDES~~) samples? CWA — (Yes) / No
- ☑ Is pH requested? — Yes / (No)
  - ☐ Was Client informed that hold time is 15 min? — Yes / No
  - If yes, did Client consent to continue? N/A
- ☑ Are sample within hold time? — (Yes) / No
  - Are sample in danger of exceeding hold-time — Yes / (No)
- ☑ Existing Client? (Yes) / No — Existing Project? (Yes) / No
  - If No: Is Report to info complete and legible, including;
    - ☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
    - Is Bill to info complete and legible, including;
    - ☐ PO# ☐ Credit card ☐ Contact ☐address ☐ phone ☐ e-mail
    - Is Contact and/or Project Manager identified, including;
    - ☐ phone ☐ e-mail
- ☑ Project name / number ☐ Special requirements? — (Yes) / No
- ☑ Sample IDs / date & time of collection provided? — (Yes) / No
- ☑ Is Matrix listed and correct? — (Yes) / No
- ☑ Analyses listed we do or client has authorized a subcontract? — (Yes) / No
- ☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
- ☑ TAT requested available? (Yes) / No — Approved by PM

Review Coolers:

- ☑ Were Coolers temperatures measured at ≤6°C? Cooler # 1 Temp 2.6 °C
  - If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
  - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- ☑ Shipment Received Method AC
- ☑ Custody Seals: Present: Yes / (No) — If Yes; Unbroken: Yes / No

Review of Sample Bottles: If you answer no, explain to the side

- ☑ Chain matches bottle labels? (Yes) / No — ☑ Sample bottle intact? (Yes) / No
- ☑ Is there enough sample volume in proper bottle for requested analyses? (Yes) / No
- ☑ Proper Preservatives? (Yes) / No Check pH on preserved samples except 1664, 625, 8270 and VOAs.
- ☑ Headspace-VOAs? **Greater than 6mm in diameter** Yes / (No)
  List sample ID and affected container

Client Sample ID	pH Check	Other Comments/Issues
-1	pH<2	250mL poly (w/HNO3) 200.7
-2		LRTO SW(1-9) Lab Comp
		(7:1 Composite)
		* 1 vial each (w/HCl)

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\anc-srv-file1\Entech-Data\Laboratory\Sample_Control\Form_Sample Receipt Checklist_Rev0.doc

3.1
3

C9773: Chain of Custody
Page 2 of 2

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C9773
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ418-MB	JJ10786.D	1	02/16/10	JA	n/a	n/a	GJJ418

The QC reported here applies to the following samples: Method: SW846 8021B

C9773-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	93%	65-135%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C9773
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ418-BS	JJ10788.D	1	02/16/10	JA	n/a	n/a	GJJ418
GJJ418-BSD	JJ10789.D	1	02/16/10	JA	n/a	n/a	GJJ418

The QC reported here applies to the following samples: Method: SW846 8021B

C9773-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5	4.8	96	4.9	98	2	65-135/30
100-41-4	Ethylbenzene	5	4.8	96	4.9	98	2	65-135/30
108-88-3	Toluene	5	4.9	98	4.9	98	0	65-135/30
1330-20-7	Xylenes (total)	15	14.4	96	14.6	97	1	65-135/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	97%	65-135%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C9773
Account: ETSCASJ ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C9755-9MS	JJ10793.D	1	02/16/10	JA	n/a	n/a	GJJ418
C9755-9MSD	JJ10794.D	1	02/16/10	JA	n/a	n/a	GJJ418
C9755-9	JJ10792.D	1	02/16/10	JA	n/a	n/a	GJJ418

The QC reported here applies to the following samples: Method: SW846 8021B

C9773-2

CAS No.	Compound	C9755-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.35	J	5	5.2	97	5.1	95	2	65-135/25
100-41-4	Ethylbenzene	ND		5	4.9	98	4.8	96	2	65-135/25
108-88-3	Toluene	0.45	J	5	5.0	91	4.9	89	2	65-135/25
1330-20-7	Xylenes (total)	ND		15	14.6	97	14.2	95	3	65-135/25

CAS No.	Surrogate Recoveries	MS	MSD	C9755-9	Limits
460-00-4	4-Bromofluorobenzene	100%	99%	97%	65-135%

Metals Analysis

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP2093
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/12/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	14	21		
Antimony	10	6.9	5.3		
Arsenic	10	4.4	3.1		
Barium	5.0	.6	.7		
Beryllium	5.0	.1	.2		
Boron	50	8.6	11		
Cadmium	2.0	.3	.3		
Calcium	50	29	12		
Chromium	5.0	.4	.6		
Cobalt	5.0	.4	.4		
Copper	5.0	.8	1.1	-0.50	<5.0
Iron	50	2.6	18		
Lead	5.0	3.3	1.3	2.2	<5.0
Lithium	10	2.2	2.5		
Magnesium	50	9.6	13		
Manganese	5.0	.1	.2		
Molybdenum	5.0	1.3	1		
Nickel	5.0	.8	.5	0.0	<5.0
Potassium	500	58	60		
Selenium	20	14	12		
Silicon	50	3.4	5.3		
Silver	5.0	.9	.7		
Sodium	100	15	13		
Strontium	10	.3	2.4		
Thallium	20	6.5	6.4		
Tin	50	2.3	2		
Titanium	2.0	.2	.2		
Vanadium	5.0	.7	.5		
Zinc	10	.9	1.1	0.70	<10

Associated samples MP2093: C9773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP2093
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/12/10

Metal	C9758-1 Original	MS	Spikelot MPIR1	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium					
Beryllium					
Boron					
Cadmium	anr				
Calcium	anr				
Chromium	anr				
Cobalt					
Copper	203	675	500	94.4	70-130
Iron					
Lead	0.0	488	500	97.6	70-130
Lithium					
Magnesium	anr				
Manganese					
Molybdenum					
Nickel	2.9	488	500	97.0	70-130
Potassium	anr				
Selenium					
Silicon					
Silver	anr				
Sodium	anr				
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	10.9	496	500	97.0	70-130

Associated samples MP2093: C9773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP2093
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/12/10

Metal	C9758-1 Original	MSD	Spikelot MPIR1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper	203	685	500	96.4	1.5	20
Iron						
Lead	0.0	500	500	100.0	2.4	20
Lithium						
Magnesium	anr					
Manganese						
Molybdenum						
Nickel	2.9	501	500	99.6	2.6	20
Potassium	anr					
Selenium						
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	10.9	510	500	99.8	2.8	20

Associated samples MP2093: C9773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP2093
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/12/10 02/12/10

Metal	BSP Result	Spikelot MPIR1	% Rec	QC Limits	BSD Result	Spikelot MPIR1	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	anr								
Barium									
Beryllium									
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	469	500	93.8	85-115	469	500	93.8	0.0	
Iron									
Lead	501	500	100.2	85-115	499	500	99.8	0.4	
Lithium									
Magnesium	anr								
Manganese									
Molybdenum									
Nickel	504	500	100.8	85-115	500	500	100.0	0.8	
Potassium	anr								
Selenium									
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	485	500	97.0	85-115	480	500	96.0	1.0	

Associated samples MP2093: C9773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP2093
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/12/10

Metal	C9758-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	203	195	3.8	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	anr			
Manganese				
Molybdenum				
Nickel	2.90	5.00	72.4 (a)	0-10
Potassium	anr			
Selenium				
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	10.9	15.0	37.6 (a)	0-10

Associated samples MP2093: C9773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

QC Batch ID: MP2093
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 02/12/10

Metal	Sample ml	Final ml	C9758-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper	10	10.1	202.6	200.5941	676.6	0.05	100	495.0495	96.2	-
Iron										
Lead	10	10.1	0	0	482	0.05	100	495.0495	97.4	-
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel	10	10.1	2.9	2.871287	479.4	0.05	100	495.0495	96.3	-
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc	10	10.1	10.9	10.79208	489.6	0.05	100	495.0495	96.7	-

Associated samples MP2093: C9773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
HEM Oil and Grease	GP1482/GN3258	5.0	0.0	mg/l	40	37.4	93.5	78-114%
Solids, Total Suspended	GN3245	5.0	0.0	mg/l				
Specific Conductivity	GN3242	1.0	0.0	umhos/cm				

Associated Samples:
Batch GN3242: C9773-1
Batch GN3245: C9773-1
Batch GP1482: C9773-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP1482/GN3258	mg/l	40	37.9	1.3	18%

Associated Samples:
Batch GP1482: C9773-1
(*) Outside of QC limits

6.2
6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Suspended	GN3245	C9735-1	mg/l	224	222	0.9	0-25%
Specific Conductivity	GN3242	C9782-1	umhos/cm	511	514	0.6	0-25%

Associated Samples:
Batch GN3242: C9773-1
Batch GN3245: C9773-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C9773
Account: ETSCASJ - ETS-Environmental Technical Services
Project: City of Richmond Discharge Samples,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
HEM Oil and Grease	GP1482/GN3258	C9763-2	mg/l	1.9	40	40.5	96.5	78-114%

Associated Samples:
Batch GP1482: C9773-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

6.4
6

Laboratory Analytical Reports
Chain of Custodies

February 10, 2010

Northern California
ACCUTEST
Laboratories

02/19/10

Technical Report for

ETS-Environmental Technical Services

City of Richmond Discharge Samples,Richmond,CA

LRT Discharge (PO#:TL19816)

Accutest Job Number: C9739X

Sampling Date: 02/09/10

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report:

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Accutest Laboratories

Sample Summary

ETS-Environmental Technical Services

Job No: C9739X

City of Richmond Discharge Samples,Richmond,CA
Project No: LRT Discharge (PO#:TL19816)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C9739-1X	02/09/10	00:00	HM	02/10/10	AQ	Surface Water	LRTO SW(1-7)FIELD COMP

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA 'ETSCASJ538' C9739

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201 ELAP No. 2346

CHAIN OF CUSTODY/ANALYSES REQUESTED
CITY OF RICHMOND
DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:_____

PO No.
TL19816
Project No./Name
LRT DISCHARGE

TURNAROUND TIME: _5 DAY___

SAMPLER: _____

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-1 through SW-7 SW-1, SW-2, SW-3 SW-4 SW-5, SW-6, SW-7	-1							X		*Field Comp*
*LRTO SW-1, SW-2, SW-3, SW4, SW-5, SW-6, SW-7										
*LTRO SW-1										
*LTRO SW-2										
*LTRO SW-3										*LRTO SW-1*
*LRTO SW-4										*through*
*LRTO SW-5										*SW-7*
*LRTO SW-6										lab comp.
*LRTO SW-7										

**LRTO SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses. Accutest, please use your detection limits when lower

Relinquished By:
* R.A. LESTER (print) R.A. [illegible] (signature) 2/10/2010 (date/time)

Received By:
To Fed Ex, package sealed on ice (print) (signature) 02/10/10 11:05 (date/time)

Relinquished By: Subcontracted to Alpha.
* NO SRC Required (EK) 2/10/10

Received By:
* Samples shipped directly via FedEx to Alpha by the client. (EK) 02/10/10

Subcontract Data

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

ELAP Certificate Numbers 1551 and 2728

18 February 2010

Accutest Northern California, Inc.
Attn: Diane Theesen
2105 Lundy Avenue
San Jose, CA 95131
RE: LRT-Discharge
Work Order: 10B0472

Enclosed are the results of analyses for samples received by the laboratory on 02/10/10 10:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Chelsea L. Sandelin

Chelsea L. Sandelin For Robbie C. Phillips
Project Manager

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 02/18/10 15:36
Project No: C9739
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
10B0472	02/10/2010 10:10	ACCUTEST	C9739

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C9739-1 LRTO SW (1-7) Field Comp	10B0472-01	Water	02/09/10 00:00	02/10/10 10:10

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

2/18/2010

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 02/18/10 15:36
Project No: C9739
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
10B0472	02/10/2010 10:10	ACCUTEST	C9739

Alpha Analytical Laboratories, Inc.

	METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
C9739-1 LRTO SW (1-7) Field Comp (10B0472-01)		**Sample Type: Water**			**Sampled: 02/09/10 00:00**			
Conventional Chemistry Parameters by APHA/EPA Methods								
Biochemical Oxygen Demand	SM5210B	AB01103	02/11/10 08:00	02/16/10 14:01	1	ND mg/l	5.0	T-3

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Bruce Gove
Laboratory Director

2/18/2010

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
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CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 02/18/10 15:36
Project No: C9739
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
10B0472	02/10/2010 10:10	ACCUTEST	C9739

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AB01103 - General Preparation										
Blank (AB01103-BLK1)				Prepared: 02/11/10 Analyzed: 02/16/10						
Biochemical Oxygen Demand	ND	5.0	mg/l							
Blank (AB01103-BLK2)				Prepared: 02/11/10 Analyzed: 02/16/10						
Biochemical Oxygen Demand	ND	5.0	mg/l							
LCS (AB01103-BS1)				Prepared: 02/11/10 Analyzed: 02/16/10						
Biochemical Oxygen Demand	180	5.0	mg/l	200		90.0	80-120			
LCS Dup (AB01103-BSD1)				Prepared: 02/11/10 Analyzed: 02/16/10						
Biochemical Oxygen Demand	181	5.0	mg/l	200		90.5	80-120	0.554	20	

Bruce Gove
Laboratory Director

2/18/2010

Alpha Analytical Laboratories Inc.
e-mail: clientservices@alpha-labs.com
Corporate: 208 Mason St., Ukiah, CA 95482 • Phone: (707) 468-0401 • Fax: (707) 468-5267
Service Center: 6398 Dougherty Rd., Suite 35, Dublin, CA 94568 • Phone: (925) 828-6226 • Fax: (925) 828-6309

CHEMICAL EXAMINATION REPORT

Accutest Northern California, Inc.
2105 Lundy Avenue
San Jose, CA 95131
Attn: Diane Theesen

Report Date: 02/18/10 15:36
Project No: C9739
Project ID: LRT-Discharge

Order Number	Receipt Date/Time	Client Code	Client PO/Reference
10B0472	02/10/2010 10:10	ACCUTEST	C9739

Notes and Definitions

T-3	Client did not specify sampling time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
PQL	Practical Quantitation Limit

Northern California ACCUTEST Laboratories

1080472

Accutest ID and PO#: C9739

2105 Lundy Avenue, San Jose, CA 95131 Phone :(408)588-0200 Fax: (408)588-0201

Subcontract Chain of Custody

temp 38

Subcontract Lab: Alpha Analytical
Date Sent: 02/09/10
Date Due: 5 Day TAT 5 Day TAT

Project Name: LRT Discharge
Project Location: Richmond, CA

Accutest Lab Number	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time
C9739-1	LRTO SW(1-7) FIELD COMP	Wastewater	BOD	02/09/10	

Comments: Samples shipped via FedEx By the client, 02/09/09

Relinquished By:	Received By:	Date:	Time:
ekumar		2-10-10	1010
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:

Send the Report to: dianet@accutest.com

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA

ACCUTEST ANALYTICAL LABS, INC. — **CHAIN OF CUSTODY/ANALYSES REQUESTED**

3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201 ELAP No. 2346

CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:_____

PO No.
TL19816
Project No./Name
LRT DISCHARGE

TURNAROUND TIME:_5 DAY___

SAMPLER: _____

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<300 mg/L	1.0 µmhos/c	<1.0 mg/L	<100 mg/L	<0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-1 through SW-7 SW-1, SW-2, SW-3 SW-4 SW-5, SW-6, SW-7								X		*Field Comp*
*LRTO SW-1, SW-2, SW-3, SW4, SW-5, SW-6, SW-7										
*LTRO SW-1										
*LTRO SW-2										
*LTRO SW-3										*LRTO SW-1*
*LRTO SW-4										*through*
*LRTO SW-5										*SW-7*
*LRTO SW-6										lab comp.
*LRTO SW-7										

****LRTO SW-1, SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses. Accutest, please use your detection limits when lower**

Relinquished By:
* R.A. LESTER RA. [illegible] 2/10/2010
print signature date/time

Received By:
To Fed Ex, package sealed on ice
print signature date/time

Relinquished By:

Received By:

Laboratory Analytical Reports
Chain of Custodies

April 29, 2010

Northern California ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/07/10

Technical Report for

ETS-Environmental Technical Services

EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

LRT Discharge (PO#:19850)

Accutest Job Number: C10852

Sampling Date: 04/29/10

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report: 27

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Sections: 1 2 3 4 5 6

Table of Contents

Sample Summary

ETS-Environmental Technical Services

Job No: C10852

EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA
Project No: LRT Discharge (PO#:19850)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C10852-1	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO(SW2-SW7)FIELD COMP
C10852-2	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO SW-2
C10852-3	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO SW-3
C10852-4	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO SW-4
C10852-5	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO SW-5
C10852-6	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO SW-6
C10852-7	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO SW-7
C10852-8	04/29/10	00:00	HM	04/30/10	AQ	Water	LRTO(SW2-SW7)LAB COMP

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO(SW2-SW7)FIELD COMP		
Lab Sample ID:	C10852-1	Date Sampled:	04/29/10
Matrix:	AQ - Water	Date Received:	04/30/10
		Percent Solids:	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Copper	15.8	5.0	ug/l	1	05/03/10	05/03/10	CT	EPA 200.7 [1]	EPA 200.7 [2]
Lead	23.7	5.0	ug/l	1	05/03/10	05/03/10	CT	EPA 200.7 [1]	EPA 200.7 [2]
Nickel	<5.0	5.0	ug/l	1	05/03/10	05/03/10	CT	EPA 200.7 [1]	EPA 200.7 [2]
Zinc	156	10	ug/l	1	05/03/10	05/03/10	CT	EPA 200.7 [1]	EPA 200.7 [2]

(1) Instrument QC Batch: MA1192
(2) Prep QC Batch: MP2339

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO(SW2-SW7)FIELD COMP		
Lab Sample ID:	C10852-1	**Date Sampled:**	04/29/10
Matrix:	AQ - Water	**Date Received:**	04/30/10
		Percent Solids:	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
HEM Oil and Grease	< 5.0	5.0	mg/l	1	05/06/10	RL	EPA 1664A
Solids, Total Suspended	14.0	5.0	mg/l	1	05/04/10	MF	SM18 2540D
Specific Conductivity	1370	1.0	umhos/cm	1	05/04/10	MF	SM18 2510B/EPA 120.1

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	LRTO(SW2-SW7)LAB COMP		
Lab Sample ID:	C10852-8	**Date Sampled:**	04/29/10
Matrix:	AQ - Water	**Date Received:**	04/30/10
Method:	SW846 8021B	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ12051.D	1	05/03/10	JA	n/a	n/a	GJJ471
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		65-135%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- **Chain of Custody**

LEVIN RICHMOND TERMINAL
402 WRIGHT AVENUE
RICHMOND, CA ETSCA6T825 C10852

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201 ELAP No. 2346

CHAIN OF CUSTODY/ANALYSES REQUESTED
CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services

1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:

PO No. TL 17450
Project No./Name
LRT DISCHARGE

BOD was FedEx'd to ALPHA Labs under separate C of C-same composite sample same PO No.

TURNAROUND TIME: 5 Day/Same as BOD due day

SAMPLER: HELEN MAWHINNEY

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DATE	TIME	Accutest No.	TSS	SPEC COND	BTX	O&G	BOD	TTLC METALS	NOTE:
									CU PB ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<0.6 mg/L	1.0 µmhos/c	<1.0 mg/L	5.0 mg/L	0.6 mg/L	cu=0.6, pb=0.3, zinc=1.0, ni=0.5	
**LRTO SW-2 through SW-7	4/29/10			X	X		X	FedExed to Alpha	X	LRTO (SW1-SW7) Field Comp
*LRTO SW-2, SW-2, SW-3, SW4, SW-5, SW-6, SW-7						X				LRTO (SW1-SW7) LAB COMP
*LTRO SW-2	4									
*LTRO SW-3	4									LRTO SW-1 through SW-7 lab comp.
*LRTO SW-4	4									
*LRTO SW-5	3									
*LRTO SW-6	4									
*LRTO SW-7	4									

*LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 are to be composited in the lab as one sample for analyses for BTEX **LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field
Interceptor SW-1 was dry

Temp | 3.6+0.3 = 3.9°C.

Relinquished By:			Received By:		
print	signature	4/29/10 date/time	print	signature	4/29/10 date/time
Relinquished By:			Received By:		
print	signature	4/30/10 date/time	print	signature	4/30/10 1310

4/30/10 13:10

C10852: Chain of Custody
Page 1 of 3

C10852

ACCUTEST ANALYTICAL LABS, INC.
3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201

CHAIN OF CUSTODY/ANALYSES REQUESTED
ELAP No. 2346

CITY OF RICHMOND DISCHARGE SAMPLES

Attention to: Helen Mawhinney
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118

PO No.
TL19850
Project No./Name
LRT DISCHARGE

temp 5.8

TURNAROUND TIME: 5 DAY

CITY OF RICHMOND STORMWATER SEWER DISCHARGE SAMPLES

CLIENT ID	DAT	TIM	Accutest No	TSS	SPEC CON	BTX	O&G	BOD	TTLC METALS	NOTE
									CU PB ZI ZN (ppm)	
EPA Method				E160.2	E120.1	5030/8021	1664	5210	E200.7	
RPL***				<300 mg	1.0 µmhos	<1.0 mg/L	<100 mg	<0.6 m	cu=0.6, pb= zinc=1.0, ni=0.5	
**LRTO SW-1 through SW-7 LTRO SW-1 DRY								X		Field C
*LTRO SW-2										
*LTRO SW-3										LRTO
*LRTO SW-4										throu
*LRTO SW-5										SW-7
*LRTO SW-6										lab c
*LRTO SW-7										

**LRTO SW-2, SW-3, SW-4, SW-5, SW-6, SW-7 was composited in the field as one sample for analyses. Accutest, please use your detection limits when lower states SW-1 through SW-7 however SW-1 was dry. All interceptors will be emptied and leaned so SW-1 is left is sample I.D. Sample was FedExed in Sealed Packa

Relinquished By: Helen Mawhinney Date/Time 4/29/10 2:59 left LRT to Fed Ex

Received d By: Date/Time 4-30-10 10:00 AM

Chain would not print to scale - content correct due to BOD time

Accutest Laboratories Northern California
Sample Receiving Check List

Job# : C10852
Sample Control Rep. Initial: EK

ETSCAS525

Review Chain of Custody **Chain of Custody is to be complete and legible.**

- Are these regulatory (NPDES) samples? CWA — Yes / No
- Is pH requested? — Yes / No
- Was Client informed that hold time is 15 min? Yes / No Continue Yes / No
- Was ortho-Phosphate filtered with in 15 min? Yes / No Continue Yes / No
- Are sample within hold time? — Yes / No
- Are sample in danger of exceeding hold-time — Yes / No
- Existing Client? Yes / No Existing Project? Yes / No

If No: Is Report to Info complete and legible, including;
□ deliverable □ Name □ Address □ phone □ e-mail
Is Bill to Info complete and legible, including;
□ PO# □ Credit card □ Contact □address □ phone □ e-mail
Is Contact and/or Project Manager identified, including;
□ phone □ e-mail

- Project name / number □ Special requirements? — Yes / No
- Sample IDs / date & time of collection provided? — Yes / No
- Is Matrix listed and correct? — Yes / No
- Analyses listed we do or client has authorized a subcontract? — Yes / No
- Chain is signed and dated by both client and sample custodian? — Yes / No
- TAT requested available? Yes / No Approved by PM

Review Coolers:

- Were Coolers temperatures measured at ≤6°C? Cooler # 1 Temp 3.1 °C
  - If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
  - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- Shipment Received Method AC
- Custody Seals: Present: Yes / No If Yes; Unbroken: Yes / No

Review of Sample Bottles: If you answer no, explain to the side

- Chain matches bottle labels? Yes / No — Sample bottle intact? Yes / No
- Is there enough sample volume in proper bottle for requested analyses? Yes / No
- Proper Preservatives? Yes / No Check pH on preserved samples except 1664, 625, 8270 and VOAs.
- Headspace-VOAs? **Greater than 6mm in diameter** Yes / No
  List sample ID and affected container

Client Sample ID	pH Check	Other Comments/Issues
-1	pH<2	250ml poly (H2SO4 HNO3) 200.7
		BOD → Subbed to Alpha.

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\Anc-srv-file1\d$\Entech-Data\Laboratory\SOPs\SOP_CompleteListing\SC001F1_1_Form1_SampleControl_SampleReceivingChecklist_2010-02-15.doc

C10852: Chain of Custody
Page 3 of 3

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: C10852
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ471-MB	JJ12045.D	1	05/03/10	JA	n/a	n/a	GJJ471

The QC reported here applies to the following samples: Method: SW846 8021B

C10852-8

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	0.50	ug/l	
108-88-3	Toluene	ND	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	102%	65-135%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C10852
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJJ471-BS	JJ12049.D	1	05/03/10	JA	n/a	n/a	GJJ471
GJJ471-BSD	JJ12050.D	1	05/03/10	JA	n/a	n/a	GJJ471

The QC reported here applies to the following samples: Method: SW846 8021B

C10852-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5	5.1	102	5.2	104	2	65-135/30
100-41-4	Ethylbenzene	5	5.1	102	5.2	104	2	65-135/30
108-88-3	Toluene	5	4.8	96	4.8	96	0	65-135/30
1330-20-7	Xylenes (total)	15	15.5	103	15.7	105	1	65-135/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	103%	102%	65-135%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C10852
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C10820-1MS	JJ12053.D	1	05/03/10	JA	n/a	n/a	GJJ471
C10820-1MSD	JJ12054.D	1	05/03/10	JA	n/a	n/a	GJJ471
C10820-1	JJ12052.D	1	05/03/10	JA	n/a	n/a	GJJ471

The QC reported here applies to the following samples: Method: SW846 8021B

C10852-8

CAS No.	Compound	C10820-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		5	5.1	102	5.2	104	2	65-135/25
100-41-4	Ethylbenzene	ND		5	5.2	104	5.3	106	2	65-135/25
108-88-3	Toluene	ND		5	4.8	96	4.9	98	2	65-135/25
1330-20-7	Xylenes (total)	ND		15	15.9	106	16.0	107	1	65-135/25

CAS No.	Surrogate Recoveries	MS	MSD	C10820-1	Limits
460-00-4	4-Bromofluorobenzene	105%	103%	103%	65-135%

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Matrix Spike and Duplicate Summaries**
- **Blank Spike and Lab Control Sample Summaries**
- **Serial Dilution Summaries**

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

QC Batch ID: MP2339
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/03/10

Metal	RL	IDL	MDL	MB raw	MB final
Aluminum	50	14	21		
Antimony	10	6.9	5.3		
Arsenic	10	4.4	3.1		
Barium	5.0	.6	.7		
Beryllium	5.0	.1	.2		
Boron	50	8.6	11		
Cadmium	2.0	.3	.3		
Calcium	50	29	12		
Chromium	5.0	.4	.6		
Cobalt	5.0	.4	.4		
Copper	5.0	.8	1.1	0.80	<5.0
Iron	50	2.6	18		
Lead	5.0	3.3	1.3	1.5	<5.0
Lithium	10	2.2	2.5		
Magnesium	50	9.6	13		
Manganese	5.0	.1	.2		
Molybdenum	5.0	1.3	1		
Nickel	5.0	.8	.5	-1.0	<5.0
Potassium	500	58	60		
Selenium	20	14	12		
Silicon	50	3.4	5.3		
Silver	5.0	.9	.7		
Sodium	100	15	13		
Strontium	10	.3	2.4		
Thallium	20	6.5	6.4		
Tin	50	2.3	2		
Titanium	2.0	.2	.2		
Vanadium	5.0	.7	.5		
Zinc	10	.9	1.1	1.7	<10

Associated samples MP2339: C10852-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

QC Batch ID: MP2339
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/03/10

Metal	C10761-1 Original	MS	Spikelot MPIR1	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt	anr				
Copper	63.4	576	500	102.5	70-130
Iron					
Lead	0.0	535	500	107.0	70-130
Lithium					
Magnesium					
Manganese					
Molybdenum	anr				
Nickel	5.3	537	500	106.3	70-130
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	484	1030	500	109.2	70-130

Associated samples MP2339: C10852-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

QC Batch ID: MP2339
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/03/10

Metal	C10761-1 Original	MSD	Spikelot MPIR1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	63.4	579	500	103.1	0.5	20
Iron						
Lead	0.0	547	500	109.4	2.2	20
Lithium						
Magnesium						
Manganese						
Molybdenum	anr					
Nickel	5.3	548	500	108.5	2.0	20
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	484	1040	500	111.2	1.0	20

Associated samples MP2339: C10852-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

QC Batch ID: MP2339
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date:		05/03/10				05/03/10			
Metal	BSP Result	Spikelot MPIR1	% Rec	QC Limits	BSD Result	Spikelot MPIR1	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	495	500	99.0	85-115	497	500	99.4	0.4	
Iron									
Lead	535	500	107.0	85-115	537	500	107.4	0.4	
Lithium									
Magnesium									
Manganese									
Molybdenum	anr								
Nickel	538	500	107.6	85-115	540	500	108.0	0.4	
Potassium									
Selenium	anr								
Silicon									
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	525	500	105.0	85-115	527	500	105.4	0.4	

Associated samples MP2339: C10852-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

QC Batch ID: MP2339
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/03/10

Metal	C10761-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	63.4	67.0	5.7	0-10
Iron				
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	5.30	0.00	100.0(a)	0-10
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	484	490	1.1	0-10

Associated samples MP2339: C10852-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

QC Batch ID: MP2339
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date: 05/03/10

Metal	Sample ml	Final ml	Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silicon										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP2339: C10852-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

General Chemistry

6

QC Data Summaries

Includes the following where applicable:

- **Method Blank and Blank Spike Summaries**
- **Duplicate Summaries**
- **Matrix Spike Summaries**

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
HEM Oil and Grease	GP1714/GN3736	5.0	0.0	mg/l	40	37.2	93.0	78-114%
Solids, Total Suspended	GN3706	5.0	0.0	mg/l				
Specific Conductivity	GN3714	1.0	0.0	umhos/cm				

Associated Samples:
Batch GN3706: C10852-1
Batch GN3714: C10852-1
Batch GP1714: C10852-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil and Grease	GP1714/GN3736	mg/l	40	35.9	3.6	18%

Associated Samples:
Batch GP1714: C10852-1
(*) Outside of QC limits

6.2
6

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Total Suspended	GN3706	C10852-1	mg/l	14.0	15.0	6.9	0-25%
Specific Conductivity	GN3714	C10852-1	umhos/cm	1370	1370	0.2	0-25%

Associated Samples:
Batch GN3706: C10852-1
Batch GN3714: C10852-1
(*) Outside of QC limits

6.3
6

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C10852
Account: ETSCASJ - ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
HEM Oil and Grease	GP1714/GN3736	C10838-1	mg/l	2.6	40	35.9	83.3	78-114%

Associated Samples:
Batch GP1714: C10852-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

6.4
6

Northern California ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/06/10

Technical Report for

ETS-Environmental Technical Services

EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

LRT EPA (PO#:TL19850)

Accutest Job Number: C10861

Sampling Date: 04/29/10

Report to:

ETS-Environmental Technical Services
1548 Jacob Avenue
San Jose, CA 95118
hmawhinneyets@aol.com

ATTN: Helen Mawhinney

Total number of pages in report: 14

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

Test results relate only to samples analyzed.

Sections: 1 2 3 4

Table of Contents

-1-

Accutest Laboratories

Sample Summary

ETS-Environmental Technical Services

Job No: C10861

EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA
Project No: LRT EPA (PO#:TL19850)

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C10861-1	04/29/10	00:00	HM	04/30/10	AQ	Water	SW-3-SW-7

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-3-SW-7		
Lab Sample ID:	C10861-1	**Date Sampled:**	04/29/10
Matrix:	AQ - Water	**Date Received:**	04/30/10
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO11370.D	1	05/04/10	NB	05/03/10	OP2081	GOO390
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

Pesticide PPL List

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.025	ug/l	
319-84-6	alpha-BHC	ND	0.025	ug/l	
319-85-7	beta-BHC	ND	0.025	ug/l	
319-86-8	delta-BHC	ND	0.025	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.025	ug/l	
12789-03-6	Chlordane	ND	0.20	ug/l	
60-57-1	Dieldrin	ND	0.025	ug/l	
72-54-8	4,4'-DDD	ND	0.025	ug/l	
72-55-9	4,4'-DDE	ND	0.025	ug/l	
50-29-3	4,4'-DDT	ND	0.025	ug/l	
72-20-8	Endrin	ND	0.025	ug/l	
7421-93-4	Endrin aldehyde	ND	0.025	ug/l	
959-98-8	Endosulfan-I	ND	0.025	ug/l	
33213-65-9	Endosulfan-II	ND	0.025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.025	ug/l	
76-44-8	Heptachlor	ND	0.025	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.025	ug/l	
72-43-5	Methoxychlor	ND	0.025	ug/l	
8001-35-2	Toxaphene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	49%		44-140%
877-09-8	Tetrachloro-m-xylene	47%		44-140%
2051-24-3	Decachlorobiphenyl	60%		44-140%
2051-24-3	Decachlorobiphenyl	60%		44-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	SW-3-SW-7		
Lab Sample ID:	C10861-1	**Date Sampled:**	04/29/10
Matrix:	AQ - Water	**Date Received:**	04/30/10
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OO11376.D	1	05/04/10	NB	05/03/10	OP2082	GOO390
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	60%		41-134%
877-09-8	Tetrachloro-m-xylene	58%		41-134%
2051-24-3	Decachlorobiphenyl	78%		41-134%
2051-24-3	Decachlorobiphenyl	71%		41-134%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- **Chain of Custody**

Site: LEVIN RICHMOND TERMINAL
402 WRIGHT AVE, RICHMOND, CA ETSCAST 525" C10861

ACCUTEST ANALYTICAL LABS, INC. **CHAIN OF CUSTODY/ANALYSES REQUESTED**

3334 VICTOR COURT Phone: (408) 588-0200
SANTA CLARA, CA 95054 Fax: (408) 588-0201
Attention to: Helen Mawhinney ELAP No. 2346
Company Name:
Environmental Technical Services
1548 Jacob Avenue
San Jose, California 95118
ACCUTEST ORDER NO:

Project No./Name
No: LRT EPA

PO NO TL19850
TURNAROUND TIME: ROUTINE

CLIENT ID	DATE	TIME	ACCUTEST No.	PEST-ICIDES 8081	PCBs				ETS NOTES
SW-3 - SW-7 (5)	4-29-10			X	X				
									2x 1Lit Ambers N/P
									Temp 3.6+0.3=3.9°C

Relinquished By:	Date: 4-29-10	Time:	Received By: ETS Friday	Date: 4-29-10	Time:	
Relinquished By: ETS Friday	Date: 4-30-10	Time:	Received By:	Date: 4-30-10	Time:	
Relinquished By:	Date:	Time:	Received By:	Date: 4/30/10	Time: 1310	

04/30/10

C10861: Chain of Custody
Page 1 of 2

Accutest Laboratories Northern California
Sample Receiving Check List

Job#: C10861
Sample Control Rep. Initial: EK

ETSCAST 525

Review Chain of Custody **Chain of Custody is to be complete and legible.**

- ☑ Are these regulatory (~~NPDES~~) samples? ~~CWA~~ — (Yes) / No
- ☑ Is pH requested? — Yes / (No)
  - N/A ☐ Was Client informed that hold time is 15 min? Yes / No Continue Yes / No
  - ☐ Was ortho-Phosphate filtered with in 15 min? Yes / No Continue Yes / No
- ☑ Are sample within hold time? — (Yes) / No
  - Are sample in danger of exceeding hold-time — Yes / (No)
- ☑ Existing Client? (Yes) / No — Existing Project? (Yes) / No
  - **If No:** Is Report to info complete and legible, including;
    - ☐ deliverable ☐ Name ☐ Address ☐ phone ☐ e-mail
  - Is Bill to info complete and legible, including;
    - ☐ PO# ☐ Credit card ☐ Contact ☐ address ☐ phone ☐ e-mail
  - Is Contact and/or Project Manager identified, including;
    - ☐ phone ☐ e-mail
- ☑ Project name / number ☐ Special requirements? — (Yes) / No
- ☑ Sample IDs / date & time of collection provided? — (Yes) / No
- ☑ Is Matrix listed and correct? — (Yes) / No
- ☑ Analyses listed we do or client has authorized a subcontract? — (Yes) / No
- ☑ Chain is signed and dated by both client and sample custodian? — (Yes) / No
- ☑ TAT requested available? (Yes) / No — Approved by PM

Review Coolers:

- ☑ Were Coolers temperatures measured at ≤6°C? Cooler # 1 Temp 3.9 °C
  - If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
  - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- ☑ Shipment Received Method AC
- ☑ Custody Seals: Present: Yes / (No) — If Yes; Unbroken: Yes / No

Review of Sample Bottles: If you answer no, explain to the side

- ☑ Chain matches bottle labels? (Yes) / No — ☑ Sample bottle intact? (Yes) / No
- ☑ Is there enough sample volume in proper bottle for requested analyses? (Yes) / No
- ☑ Proper Preservatives? Yes / No — Check pH on preserved samples except 1664, 625, 8270 and VOAs.
- N/A ☐ Headspace-VOAs? **Greater than 6mm in diameter Yes / No**
  List sample ID and affected container

Client Sample ID	pH Check	Other Comments/Issues
		2x 1L Ambers NP.

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\Anc-srv-file1\d$\Entech-Data\Laboratory\SOPs\SOP_CompleteListing\SC001F1_1_Form1_SampleControl_SampleReceivingChecklist_2010-02-15.doc

C10861: Chain of Custody
Page 2 of 2

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: C10861
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2081-MB	OO11364.D	1	05/04/10	NB	05/03/10	OP2081	GOO390

The QC reported here applies to the following samples: Method: SW846 8081A

C10861-1

CAS No.	Compound	Result	RL	Units	Q
309-00-2	Aldrin	ND	0.025	ug/l	
319-84-6	alpha-BHC	ND	0.025	ug/l	
319-85-7	beta-BHC	ND	0.025	ug/l	
319-86-8	delta-BHC	ND	0.025	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.025	ug/l	
12789-03-6	Chlordane	ND	0.20	ug/l	
60-57-1	Dieldrin	ND	0.025	ug/l	
72-54-8	4,4'-DDD	ND	0.025	ug/l	
72-55-9	4,4'-DDE	ND	0.025	ug/l	
50-29-3	4,4'-DDT	ND	0.025	ug/l	
72-20-8	Endrin	ND	0.025	ug/l	
7421-93-4	Endrin aldehyde	ND	0.025	ug/l	
959-98-8	Endosulfan-I	ND	0.025	ug/l	
33213-65-9	Endosulfan-II	ND	0.025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.025	ug/l	
76-44-8	Heptachlor	ND	0.025	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.025	ug/l	
72-43-5	Methoxychlor	ND	0.025	ug/l	
8001-35-2	Toxaphene	ND	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	67%	44-140%
877-09-8	Tetrachloro-m-xylene	54%	44-140%
2051-24-3	Decachlorobiphenyl	67%	44-140%
2051-24-3	Decachlorobiphenyl	65%	44-140%

Method Blank Summary

Job Number: C10861
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2082-MB	OO11353.D	1	05/03/10	MT	05/03/10	OP2082	GOO389

The QC reported here applies to the following samples: Method: SW846 8082

C10861-1

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.10	ug/l	
11104-28-2	Aroclor 1221	ND	0.10	ug/l	
11141-16-5	Aroclor 1232	ND	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	65%	41-134%
877-09-8	Tetrachloro-m-xylene	61%	41-134%
2051-24-3	Decachlorobiphenyl	77%	41-134%
2051-24-3	Decachlorobiphenyl	71%	41-134%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C10861
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2081-BS	OO11365.D	1	05/04/10	NB	05/03/10	OP2081	GOO390
OP2081-BSD	OO11366.D	1	05/04/10	NB	05/03/10	OP2081	GOO390

The QC reported here applies to the following samples: Method: SW846 8081A

C10861-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.1	0.068	68	0.052	52	27	35-130/30
319-84-6	alpha-BHC	0.1	0.066	66	0.045	45	38* [a]	35-130/30
319-85-7	beta-BHC	0.1	0.070	70	0.052	52	30	35-130/30
319-86-8	delta-BHC	0.1	0.071	71	0.052	52	31* [a]	35-130/30
58-89-9	gamma-BHC (Lindane)	0.1	0.071	71	0.048	48	39* [a]	35-130/30
60-57-1	Dieldrin	0.1	0.074	74	0.059	59	23	35-130/30
72-54-8	4,4'-DDD	0.1	0.077	77	0.066	66	15	35-130/30
72-55-9	4,4'-DDE	0.1	0.077	77	0.064	64	18	35-130/30
50-29-3	4,4'-DDT	0.1	0.083	83	0.073	73	13	35-130/30
72-20-8	Endrin	0.1	0.079	79	0.063	63	23	35-130/30
7421-93-4	Endrin aldehyde	0.1	0.073	73	0.059	59	21	35-130/30
959-98-8	Endosulfan-I	0.1	0.077	77	0.059	59	26	35-130/30
33213-65-9	Endosulfan-II	0.1	0.074	74	0.063	63	16	35-130/30
1031-07-8	Endosulfan sulfate	0.1	0.097	97	0.080	80	19	35-130/30
76-44-8	Heptachlor	0.1	0.072	72	0.056	56	25	35-130/30
1024-57-3	Heptachlor epoxide	0.1	0.074	74	0.057	57	26	35-130/30
72-43-5	Methoxychlor	0.1	0.083	83	0.075	75	10	35-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	66%	53%	44-140%
877-09-8	Tetrachloro-m-xylene	53%	45%	44-140%
2051-24-3	Decachlorobiphenyl	67%	71%	44-140%
2051-24-3	Decachlorobiphenyl	65%	69%	44-140%

(a) Spike recovery within control limits in BS/BSD.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C10861
Account: ETSCASJ ETS-Environmental Technical Services
Project: EPA Discharge Sample,Levin Richmond Terminal,Richmond,CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP2082-BS	OO11354.D	1	05/03/10	MT	05/03/10	OP2082	GOO389
OP2082-BSD	OO11355.D	1	05/03/10	MT	05/03/10	OP2082	GOO389

The QC reported here applies to the following samples: Method: SW846 8082

C10861-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	0.4	0.28	70	0.32	80	13	40-140/30
11096-82-5	Aroclor 1260	0.4	0.32	80	0.37	93	14	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	72%	83%	41-134%
877-09-8	Tetrachloro-m-xylene	69%	78%	41-134%
2051-24-3	Decachlorobiphenyl	85%	95%	41-134%
2051-24-3	Decachlorobiphenyl	76%	88%	41-134%

Appendix C

Cap Inspection

ENVIRONMENTAL TECHNICAL SERVICES

1548 Jacob Avenue, San Jose, CA 95118 Cell: (510) 385-4308 Fax: (408) 267-9729 hmawhinneyets@aol.com

July 14, 2010

Levin Richmond Terminal
402 Wright Avenue
Richmond, CA 94804
Attn: Tony Lester
Operations Supervisor

RE: Upland Cap Inspection, Former United Heckathorn Facility
402 Wright Avenue, Richmond, California

The Upland Cap located at the Former United Heckathorn Facility, was inspected by Helen Mawhinney for Environmental Technical Services, on June 29, 2010 and found to be intact and in good condition.

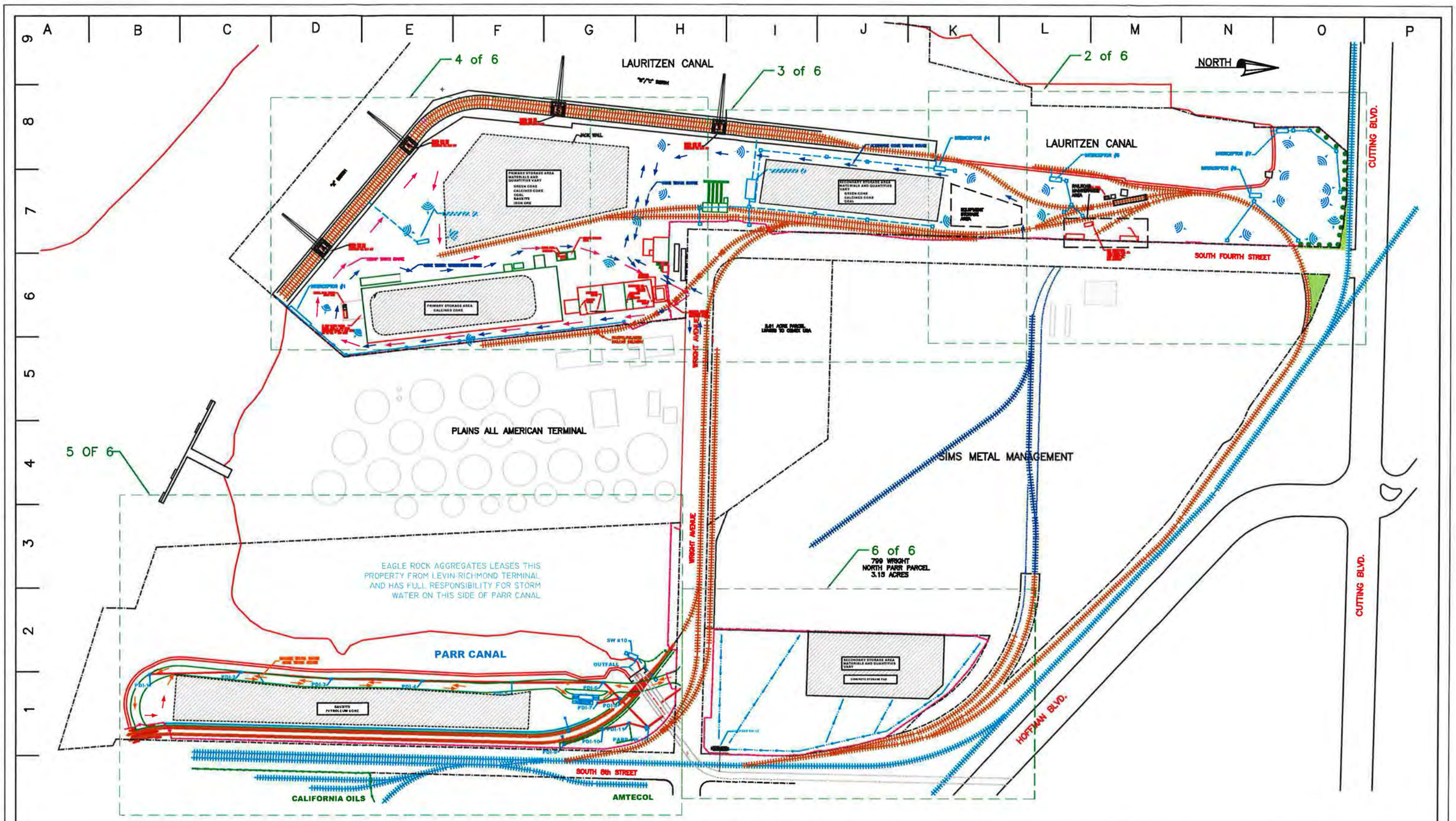
The cap's was found to be uncompromised and in good condition, with only occasional surface hairline cracks typical of those that develop subsequent to the curing of freshly poured concrete. The cracks are insignificant and not indicative of stress fractures. These surface cracks are too small to repair.

Sincerely,

Helen Mawhinney
Senior Environmental Consultant

Appendix D

Figures



SCALE 1" = 200'

LEVIN–RICHMOND TERMINAL

STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS
OVERALL VIEW OF MAIN TERMINAL, SOUTH AND NORTH PARR YARDS

1 OF 6

DATE: 6/15/10

D E F G H

8

EMBANKMENT WITH RIP-RAP

APPROX POINT OF PIPE REPAIR

OUTFALL

SW #4

OUTFALL

SW #5

SUMP OUTFALL

OUTFALL

SW #7

EMBANKMENT WITH RIP-RAP

OUTFALL

SW #6

DIESEL FUEL 4000 P-DW AST

RAILROAD MAINTENANCE AREA

EQUIPMENT STORAGE AREA

FENCE LINE

ZEP DEGREASER
450 DIESEL ENG. OIL
1240 DIESEL OIL
30W MOTOR OIL
NAL COOLANT

SOUTH FOURTH STREET

7

6

5

C:\Users\jjmc\MY DOCS\AUTOCAD 2009\STORMWATER DWGS\STORMWATER PLANS UPDATED 6-15-10.dwg, 6/25/2010 5:06:59 PM, ANSI expand B (17.00 x 11.00 Inches)

SCALE 1" = 60'

LEVIN-RICHMOND TERMINAL

STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS
NORTH MAIN YARD STORMWATER SYSTEMS

2 OF 6

DATE: 6/15/10

G H I J K L

8 7 6 5

3

OUTFALL

DIESEL 600 SW
DIESEL 100 SW
HYDROLIC OIL 200 DW

ALTERNATE COKE TRUCK ROUTE

OUTFALL

INTERCEPTOR #4

EMBANKMENT WITH RIP–RAP

INTERCEPTOR #3

COKE TRUCK ROUTE

SECONDARY STORAGE AREA
MATERIALS AND QUANTITIES VARY
GREEN COKE
CALCINED COKE
COAL
POTENTIA DUST GENERATOR

EQUIPMENT STORAGE AREA

FENCE LINE

SOUTH FOURTH STREET

SHOP AREA

CLEANING SOLVENTS

HYDRAULIC OIL
30W OIL
GREASE

CLEANERS
OILS
SOLVENTS

SOLVENT TANK

COVERED, BERMED EQUIPMENT WASH RECYCLING SYSTEM

2.91 ACRE PARCEL
LEASED TO CEMEX USA

PACIFIC/ATLANTIC
RAILCAR DELIVERY

WRIGHT AVENUE

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SCALE 1" = 60'	LEVIN–RICHMOND TERMINAL STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS CENTRAL YARD – ALTERNATE MATERIAL STORAGE AREA AND TRUCK FLOWS	3 OF 6 DATE: 6/15/10

D E F G H

8 7 6 5

"A" BERTH

DIESEL 600 SW
DIESEL 100 SW
HYDROLIC OIL 200 DW

DIESEL 600 SW
DIESEL 100 SW
HYDROLIC OIL 200 DW

DIESEL 600 SW
DIESEL 100 SW
HYDROLIC OIL 200 DW

JACK WALL

MAIN TERMINAL
15.12 ACRES

PRIMARY STORAGE AREA
MATERIALS AND
QUANTITIES VARY

GREEN COKE
CALCINED COKE
COAL
BAUXITE
IRON ORE

POTENTIAL DUST GENERATOR

COKE TRUCK ROUTE

INTERCEPTOR #2

SCRAP TRUCK ROUTE

COKE TRUCK WAREHOUSE ROUTE

BERMED FUELING AREA

DIESEL FUEL
GASOLINE

SHOP AREA

WRIGHT AVENUE

CLEANING SOLVENTS
HYDRAULIC OIL 30W OIL GREASE

ACETYLENE TANKS

OXYGEN TANKS

CLEANERS OILS SOLVENTS

SOLVENT TANK

COVERED, BERMED EQUIPMENT WASH RECYCLING SYSTEM

INTERCEPTOR #1

DIESEL FUEL TRUCK
3000 DWC

3 OILY WATER TANKS
HYDRAULIC FLUID
30 WT OIL
GREASE

PRIMARY STORAGE AREA
CALCINED COKE
POTENTIAL DUST GENERATOR

FLOW

FLOW

PACIFIC/ATLANTIC
RAILCAR DELIVERY

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SCALE 1" = 60'

LEVIN–RICHMOND TERMINAL

STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS
MAIN YARD MATERIAL STORAGE AREAS AND TRUCK FLOWS

DATE: 6/15/10

B C D E F G H

3

2

EAGLE ROCK AGGREGATES LEASES THIS PROPERTY FROM LEVIN-RICHMOND TERMINAL AND HAS FULL RESPONSIBILITY FOR STORM WATER ON THIS SIDE OF PARR CANAL

FENCE LINE

PROPERTY LINE

SECURITY GATES

SW #10

EMBANKMENT WITH RIP-RAP

PARR CANAL

EMBANKMENT WITH RIP-RAP

BAUXITE TRUCK ROUTE
COKE TRUCK ROUTE

SWALES

OUTFALL

PDI-1

PDI-2

PDI-3

PDI-4

PDI-5

PDI-6

PDI-7

PDI-8

PDI-9

PDI-10

PDI-11

PRIMARY STORAGE AREA
BAUXITE / PETROLEUM COKE
POTENTIAL DUST GENERATOR

SO. PARR SW-11

SOUTH 8th STREET

RICHMOND CITY STORMWATER CULVERT

CALIFORNIA OILS

AMTECOL

SCALE 1" = 80'	LEVIN–RICHMOND TERMINAL STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS SOUTH PARR MATERIAL STORAGE AREA AND TRUCK FLOWS	5 OF 6 DATE: 6/15/10

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H I J K L

2 1

WRIGHT AVENUE

SECURITY GATE

FENCE LINE

6" CURB

PROPERTY LINE

CONVEYOR STORAGE

FLOW

SECONDARY STORAGE AREA
MATERIALS AND QUANTITIES
VARY

CONCRETE STORAGE PAD

SECURITY GATE

IMPERVIOUS ASPHALT CAP

CONVEYOR STORAGE

3'x3' DRAIN INLET
NO. PARR SW-12

3'x3' DRAIN INLET

6" CURB

SOUTH 8th STREET

RICHMOND CITY STORMWATER CULVERT

OUTFALL TO CITY STORMWATER CULVERT

HOFFMAN BLVD.

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SCALE 1" = 50'	LEVIN–RICHMOND TERMINAL STORM WATER FLOW, CATCH BASINS AND INTERCEPTORS NORTH PARR YARD ALTERNATE STORAGE AREA	6 OF 6 DATE: 6/15/10